THE MUSEUM

ITS HISTORY AND ITS TASKS IN EDUCATION

by

ALMA S. WITTLIN, PH.D.

LIBRARY

LONDON
ROUTLEDGE & KEGAN PAUL LIMITED
BROADWAY HOUSE: 68–74 CARTER LANE, E.C.4

THE MUSEUM
ITS HISTORY AND ITS TASKS
IN EDUCATION

INTERNATIONAL LIBRARY OF SOCIOLOGY AND SOCIAL RECONSTRUCTION

Editor: Dr. Karl Mannheim

ARBOR SCIENTIÆ ARBOR VITÆ

Advisory Board: Sir HAROLD BUTLER, K.C.M.G., C.B.; Sir ALEXANDER CARR-SAUNDERS, M.A., Director of the London School of Economics; Sir FRED CLARKE, M.A. (Oxon), Chairman, Central Advisory Council for Education; Lord LINDSAY of Birker, C.B.E., Master of Balliol College, Oxford.

First published 1949

NA,G
H9
59557

THIS BOOK IS PRODUCED IN COMPLETE
CONFORMITY WITH THE AUTHORIZED
ECONOMY STANDARDS

Printed in Great Britain by Butler & Tanner Ltd., Frome and London

"The need is to upset conventions
***in order** to close the gap between what museums are doing*
and what the world expects of them."

(Dr. F. P. Keppel, President of the Carnegie Corporation, in his Annual Report to the Corporation, 1937.)

"There can be no successful democratic society till general education, conveys a philosophic outlook.

Philosophy is not a mere collection of noble sentiments. A deluge of such sentiments does more harm than good. Philosophy is at once general and concrete, critical and appreciative of direct intuition. . . . It is a survey of possibilities and their comparison with actualities. In philosophy, the fact, the theory, the alternatives, the ideal are weighed together. Its gifts are insight and foresight, and a sense of the worth of life, in short, that sense of importance that nerves all civilized effort. Mankind can flourish in the lower stages of life with merely barbaric flashes of thought. But when civilization culminates, the absence of a co-ordinating philosophy of life, spread throughout the community, spells decadence, boredom, and the slackening of effort."

(Whitehead, A. N., *Adventures of Ideas*, Cambridge, 1933 p. 125.)

(*Italics are mine*, A. S. W.)

CONTENTS

PAGE

Preface xiii

PART I

THE HISTORY OF THE MUSEUM

CHAP.

I. The Term "Museum" and some Other Terms of Similar Meaning 1

II. Some Fundamental Queries and an Approach to Them . 9

III. Collections other than Public Museums 12

Sec. i. Economic Hoard Collections 13

„ ii. Social Prestige Collections 23

„ iii. Magic Collections 29

„ iv. Collections as an Expression of Group Loyalty . 37

1. Kinship with a Golden Age Ancestry . 37

2. Patriotism 39

3. Scions of the Mediterranean World . . 43

4. Europeans 51

„ v. Collections as Means of Stimulating Curiosity and Inquiry 56

„ vi. Art Collections as Means of Emotional Experience 70

„ vii. The Presentation of Specimens; Manners and Modes 80

„ viii. Ways and Means of Acquiring Specimens. . 94

IV. The Public Museum 109

Sec. i. Origins of the Public Museum 109

A. Forerunners of the Public Museum . . 109

B. Origins of some of the chief European Museums 113

C. The Era of Enlightenment . . . 132

„ ii. Efforts at Reform 136

A. First Period, up to 1914 136

B. Second Period, between the two Wars . 152

PART II

THE TASKS OF THE MUSEUM IN EDUCATION

Some Suggestions for the Future

CHAP.		PAGE
I.	MUSEUMS—TO WHAT PURPOSE?	185
II.	TYPES OF MUSEUMS	190
	Storehouses versus Display Museums	191
	Sec. i. Storehouse Museums	191
	Sec. ii. Display Museums	193
	1. Research Museums	193
	2. Students' Galleries	195
	3. Centres of Training in Basic Facts	196
	4. Museums for the General Public	202
	5. Museum Services for Children	211
	CONCLUDING NOTES	220
	APPENDICES	223
	SKETCHES	256
	PLATES	261
	INDEX	285

ILLUSTRATIONS

LIST OF FIGURES

(in the text)

FIG. PAGE

1. The treasure chamber of the princes of Hapsburg. Woodcut by A Altdorfer (1515) 17
2. Exhibition hall in the *Musée Napoléon* in the Louvre . . 26
3. The Hall of Roman Emperors, in the museum in the Louvre, Paris. Engraving by Hibon, after a painting by Cibeton. *By courtesy of the Louvre Museum* 46
4. The eighteenth-century collection of classic archaeology of Count Caylus. Frontispiece of his *Recueil des Antiquitées* . . 49
5. The Anatomical Theatre in Leyden. From Meursius' *Athenae Batavae* . . . (1625) 62
6. Eighteenth-century blue-print for a "museum". From D. F. Neickelius' *Museographia*, of 1727 64
7. A list of works of art abducted by the Romans from conquered territories. From Sickler's *Geschichte der Abfuehrung vorzueglicher Kunstwerke* . . . , of 1803 98
8. *Museo Pio Clementino*, Vatican. Hall in the form of a Greek cross (1780). From Letarouilly's *Le Vatican*. 124

Sketches. Figs. 9a, b, c, d, e and f, g and h, i and j

Some problems of the presentation of specimens in museums (of art, archæology and ethnology) 256–60

LIST OF PLATES

(at the end of the book)

PLATE PAGE

I Roman *Pinacotheca* in the first century B.C. From Vitruv's *De Architectura* 261

IIA Collection of antiquities in the *Casa Sassi* in Rome, sixteenth century. Engraving by D. van Coornhaert after a drawing by M. van Heemskerck. *Kupferstichkabinet*, Berlin . . 262

IIB The garden of a Renaissance collector in Rome. Engraving by H. Cock after a drawing by M. van Heemskerck . . 262

III The Italian Renaissance collector A. Odoni. Painting by Lorenzo Lotto. Hampton Court. *By courtesy of the Surveyor of the King's Pictures* 263

IV Thomas Howard, Earl of Arundel (1586–1646) and his sculpture gallery at Arundel House. Painting by P. van Somer (or D. Mytens). *By courtesy of the Duke of Norfolk, Arundel House, and of Sir Robert Witt, collection of photographs* . . 264

PLATE		PAGE
V	Charles Townley and his friends in the Townley Gallery in Westminster, London. Painting by J. Zoffany. *By courtesy of the Burnley Corporation and of Sir Robert Witt, collection of photographs*	265
VI	The Museum of Ferrante Imperato (1550–1640) of Naples. Frontispiece of his *Dell' Historia Naturale*	266
VIIA	Museum Cospi, Bologna. Frontispiece of the catalogue of the collection, of 1677	267
VIIB	The museum of the Danish scholar O. Worm. Frontispiece of the catalogue of his collection, of 1655	267
VIIIA	Levin Vincent's *Gazophylacium*. Illustration from the description of the collection by R. de Hooge, Haarlem, 1719	268
VIIIB	A single cabinet in Vincent's Museum	268
IXA	Musaeum Kircherianum. From the catalogue of the museum, by G. Sepibus, of 1678	269
IXB	The *Kunstkammer* of the princes of Gottorf. Frontispiece of the catalogue of the collection, by Olearius, of 1674	269
X	The *Tribuna* in the Medici Gallery, Florence. Painting by J. Zoffany (1770–80). Windsor Castle. *By courtesy of the Surveyor of the King's Pictures*	270
XI	Archduke Leopold Wilhelm of Hapsburg in his Gallery in Brussels. Painting by D. Teniers, Jun. *By courtesy of the Kunsthistorisches Museum, Vienna*	271
XIIA	Emperor Leopold I (1640–1705) in the Imperial Library and Chamber of Rarities. From E. Brown's *Travels* . . . , Nuremberg, 1711	272
XIIB	The *Kunstkammer* of the princes of Brandenburg, Berlin. From L. Beger's *Numismatum Modernorum . . . sectio prima*, of 1704	272
XIII	Cardinal Mazarin in his Gallery (1602–61). Engraving by R. Nanteuil and van Schuppen	273
XIV	*Galleria Colonna*, Rome. Photo, D. Anderson, 1930	274
XVA	The Cabinet of F. Ruysch (1638–1731), from his *Opera Omnia*	275
XVB	A group of Ruysch's anatomical preparations. From his *Thesaurus Animalium*	275
XVIA	Louvre, *Grande Galerie*. The wedding procession of Napoleon Bonaparte and Marie Louise, 1810. Water colour by B. Zix. *By courtesy of the Museum of Sèvres and the Louvre Museum*	276
XVIB	Louvre, *Salle des Antiques*, about 1810. Emperor Napoleon and his Empress view the " Laokoon ". Pen drawing by B. Zix. *By courtesy of the Louvre Museum*	276
XVIIA	Montague House, the building in which the British Museum was originally housed, seen from Great Russell Street	277
XVIIB	Montague House in its original state, built about 1680, seen from the garden, with the New Building, of 1804, in the Vignette. Published, 1813, by R. Ackermann	277

PLATE		PAGE
XVIIIA	The hall and staircase in Montague House. Drawing by Pugin and Rowlandson, aquatint by J. Bluck. Published, 1808, by R. Ackermann	278
XVIIIB	Country visitors in the Egyptian Ante-Room, New Building, British Museum (1862)	278
XIX	Exhibition of the Royal Academy, Somerset House. From a drawing by H. Ramberg. *By courtesy of the Royal Academy*	279
XX	The Louvre, Paris. Exhibition of works by members of the Royal Academy in 1699. Anonymous engraving. *By courtesy of the Bibliothèque Nationale and the Louvre Museum* .	280
XXI	The museum in the Louvre. An exhibition in the year VIII of the Republic (1800). Engraving after a painting by Monsaldy. *By courtesy of the Bibliothèque Nationale and the Louvre Museum*	281
XXII	The *Belvedere* in the Vatican, Rome. From a painting by H. van Cleeve (before 1551).	282
XXIIIA	The imperial collection in Vienna, in its early eighteenth-century presentation in the *Stallburg*. From Stampart's and Prenner's *Prodromus*	283
XXIIIB	Prado Museum, Madrid. The central gallery. From A. F. de los Rios' *Guia de Madrid . . .* , of 1876. *By courtesy of the Prado Museum*	283
XXIV	Exhibition of Art Treasures in Great Britian, Manchester, 1857. *By courtesy of the Public Library, Manchester* . .	284

PREFACE

Two considerations have prompted the writing of this essay. Firstly, the conviction that the unsettled conditions which have been and are still developing increasingly in contemporary society will not find a balance until general education, both as to its content and its method, has been radically revised and adjusted to existing reality, and, secondly, the belief that the museum—the method of communicating information and experience by the visual means of the exhibition and the appeal of the three-dimensional object—holds special potentialities for the fulfilment and the furtherance of educational requirements. Education is here understood to be a process developing the personality of the student, in addition to offering vocational instruction, and providing information as well as fostering the capacity to react to experiences, to interpret and to evaluate problems as they confront people in existing conditions of life.

In the course of the last decades, the United States of America have in the West taken the lead in progressive developments in museums, and in recent years museums received special attention in the United Socialist Soviet Republics and, to some extent, in Italy and Germany. Their individual efforts invite comparison.

For a hundred and fifty years museums in Europe have been ranking as public institutions and have been enshrining great material and spiritual wealth. Yet to the education and stimulation of ordinary men and women they have on the whole contributed little, in spite of practical efforts at reconstruction and in spite too, of a considerable body of theoretical criticism and discussion containing constructive suggestions. The discrepancy between a well-directed theory and the paucity of actual progress is another problem which requires interpretation.

The Public Museum being a civic institution, the justification of its existence should be measured by its capacity to serve the needs of people. It seems evident that on the whole the European Museum is an ill-adjusted and in many cases a functionless institution. This fact is revealed both by the attitude to museums of the public which is supposed to benefit from them, and by the views of experts. The public is indifferent to museums. Most adults can describe a theatre or a public library, but how

many, or how few, can describe a museum? To the evidence of the numerous expert critics of the European museums and to their suggestions for reconstruction may be added experience gained by the present writer in the course of experimental exhibitions set up in the years 1942–3 at the University Museum of Archæology and Ethnology, Cambridge. These experiments confirmed the view that some of the arrangements customary in many museums have little beneficial effect on people, and result in waste of public money, in waste of energy, and in loss of opportunities for education and enjoyment; moreover, it was demonstrated that certain modes of selection and presentation of exhibits tend to upset, bewilder and depress the minds of spectators. On the other hand, these experiments pointed to the potentialities of exhibitions purposefully prepared to meet the public's need for instruction, relaxation and stimulus.

The present writer has first-hand knowledge of European museums only and refers to others solely in terms of comparison. It appears, however, as though museums have nowhere solved their problems as satisfactorily as have other public institutions such as schools, theatres and hospitals. The European Museum is the parent of museums in other countries and an attempt to give an account of its origins may contribute to a diagnosis of the state of existing museums in general: of their genuine characteristics, tasks and methods, ills and possible cures; to a better discrimination between live features and dead wood. This retrospective survey will lead up to some suggestions for the reconstruction of the public museum, primarily in Europe.

* * *

In finishing this manuscript I wish to express my thanks to all those whose aid was indispensable in its preparation. My gratitude is first due to the memory of the late J. von Schlosser, Professor of History of Art at the University of Vienna, whose seminars are unforgettable by all who partook in them. I owe thanks to innumerable curators of museums and owners of private collections throughout Europe who allowed me to learn from the stores of their materials and their personal knowledge. To one interested in the potentialities of the museum as an instrument of mass education, efforts undertaken in Spain in the years 1931–2 were specially instructive. In the wake of a general movement to contribute to the well being of the community by raising the

standards of education, small itinerant exhibitions were sent out from Madrid to the villages in the provinces and I was fortunate enough to share in some of these experiences.

I am indebted to Professor A. E. Richardson for his constant sympathy, and to Professor F. C. Bartlett, Miss M. D. Vernon and Dr. R. H. Thouless for the encouragement they gave in the initial stages of my work in this country. My gratitude is due to Miss Olive Chandler for her unfailing help in correcting the manuscript ; to Mrs. Kathleen Rishbeth and Mr. R Tavondahle Fleming for their help in correcting the proofs ; to Sir Frederic G. Kenyon, Professor D. R. Laurie and Madame Aulanier of the Louvre Museum, for reading the proofs and making some valuable suggestions.

The award of a Fellowship by the International Federation of University Women enabled me to undertake work in the years 1942–3. Thanks are finally to be given to the Department of Archæology and Anthropology of the University of Cambridge who, without being connected with this work, allowed me to use specimens and rooms of their museum for the purpose of my experiments.

Owing to technical difficulties of the post-war period, the manuscript, which was completed in the spring 1945, reached the press in 1946–7. Only a few casual references to work undertaken in museums after the war could be added. The foundation, in 1946, of *The International Council of Museums*, I.C.O.M., augurs well for the future of museums.

A. S. W.

PART I

THE HISTORY OF THE MUSEUM

CHAPTER I

THE TERM "MUSEUM" AND SOME OTHER TERMS OF SIMILAR MEANING

In its present meaning the term *Museum* refers to a collection o specimens of almost any character and is in theory connected witl the education or enjoyment of anybody who may wish to avai himself of its facilities. These connotations, however, were no at all times inherent in the word museum, and were not alto- gether implied at the time of its apparent origin in ancien Greece.

In Greece the claim of a place to the name *Μουσεῖον*—th Muses' realm—seems to have depended on its general atmo- sphere rather than on its concrete features.[1] It was a place wher man's mind could attain a mood of aloofness above everyda affairs. Elements of a sacred temple and of an educationa institution seem to have mingled in Greek Schools of Philosophy in Pythagoras' school in Southern Italy and in Plato's Academy where the study of philosophy was regarded as a service to th Muses. The emphasis shifted from the religious and ethical t the intellectual side in the Hellenistic Museum of Alexandria, that great namesake of our museum, which in fact was mor akin to a research institute than to a museum in the presen sense.

A collection of statues of thinkers, of votive donations, o astronomical and surgical instruments, and of such products o nature as elephant tusks and hides of rare animals, was par of the equipment of the Museum of Alexandria. Yet it is no this accumulation of specimens—mere accessories of a researcl station—but the general encyclopædic character that seems t be a feature common both to the Museum of Alexandria an the existing Museum. Indeed, the main characteristic of tha formidable foundation at Alexandria appears to have been it scope : the catholicism of its spirit of inquiry reaching out fo

all the available knowledge of the time. The subjects of research, discussions and lectures ranged from religion to medicine, from myths and philosophy to zoology and geography, and in each case the compilation was on a grand scale. Myths were collected into a lexicographic body ; a survey of all available geographic information was attempted, together with a summary of philosophical thought. This great stocktaking of knowledge was indicative of a state of peace and wealth under the Ptolemies, and of a desire to speed the progress of civilization by means of the power of knowledge.

Learning of encyclopædic character was again connected with the term Museum on later occasions when books were published under this title. Whatever the subjects of these writings may have been, the method of presentation was in all cases the same. They were compilations, and it was implied in the term " Museum " that the survey contained, if not all the data available, at least a representative selection of information on the subject concerned. How widely the subjects of these *musea* in print varied can be seen from a few examples. There was the *Museum Metallicum*, published about 1600 by the famous naturalist and collector Aldrovandi of Bologna, in which all available information on metals was supposed to have been gathered. In 1704, Dr. M. B. Valentini published at Frankfurt his *Museum Museorum*, a survey of " all materials and spices for chemists and their customers, and also other artists ". A *Poetical Museum*, containing songs and poems on almost every subject, was published in 1784 in London, and at the recent date of 1906 a *Museum of Dramatists*, composed of texts of Plays from English Dramatists. Rymsdyk's *Museum Britannicum*, published in 1791, offered information on " natural knowledge " and on a variety of " elegant matters for conversation ", on things " picturesque ", " curious " and " scarce ".[3]

Pliny's *Natural History* was an encyclopædia in the Greek meaning of a " complete circle of learning ". In the Middle Ages an all-round conception of knowledge may have been at the basis of such works as the *Etymologies* of Bishop Isidore of Seville in the seventh century or in Ramon Lull's *Ars Generalis* in the thirteenth, but it would appear as if the encyclopædic approach to study was specially characteristic of epochs of intensified interest in learning, such as opened up in the Renaissance and led to the creation of the publications known at present as Encyclopædias. It seems noteworthy that the sixteenth and

seventeenth centuries, which engendered interest in encyclopædic learning,[4] were also periods unusually fertile in the creation of collections of "Naturalia" and "Artificialia" containing an almost unlimited variety of specimens of nature, objects of art, mechanical inventions and religious idols.

Thus one feature inherent in the term Museum, both in the past and in the existing institution—above all in the General Museum—would seem to be established: the catholicism of outlook embracing a wide range of subjects and, in the ideal, aiming at a "complete circle of knowledge".

Another feature, however, implied in the original words "Muses" and "Museion", that of inspiration, often seems to have become dissociated from the existing museum. Many museums contain numerous specimens of beauty and interest, each one capable of inspiring people with a heightened sense of vitality and quickened thought, yet brought together in a museum the spell of each single thing frequently fades under the influence of factors alien to a "realm of the muses",[5]—disharmony and dullness.

The idea of public service implied in the existing museum was not a characteristic of either the Greek *Μουσεῖον* or of all the museums of past centuries. In fact, the term used in the ancient Mediterranean world reappeared in fifteenth-century Florence where Cosimo Medici's private collection of codices and curios was referred to as a museum. In subsequent centuries the term *Museum* was applied to numerous private collections but a variety of other terms was used as well, and it seems difficult to connect each single term with a definite kind of collection. The term *Gallery*, which at present is often associated with a collection of paintings and sculpture, as distinct from the *mixtum compositum* of a museum, was and is also used to indicate a collection of miscellanea.[6] Francis Bacon, in the *New Atlantis*, distinguished between a "Gallery" for statues and a "Closet" for various rarities.[7] For architectural reasons the term Gallery would appear to be connected with collections of objects of art rather than curios, since paintings and sculptures require special lighting such as can be provided by a corridor-like room with much window space between and opposite the specimens. Part of the extension of the Medici Palace in Florence in the sixteenth century, built by Vasari for Cosimo Medici and known as "Galleria delle Statue", was a narrow corridor with large window panes. "A long narrow room, well lit on both sides"

(apparently on the two long sides) was the description of a gallery in Zeiller's *Itinerarium Germaniae*, of 1623.[8]

In his book *L'Idea della Architettura Universale*, of 1615, Scamozzi proffered the explanation that the gallery was an architectural invention of the North, and especially of France, where it had originally served as an entrance hall to the residences of distinguished personages and later came to be used for housing collections.[9] In fact, the hall-like structure of the gallery became a feature of palaces only in the late sixteenth century, and more prevalently in the seventeenth and eighteenth centuries, when princely abodes had ceased to serve as citadels and had become ornate, and often boastfully conspicuous residences. On some occasions, an art collection would be referred to as a gallery although housed in rooms differing in shape from a corridor.

The term *pinacotheca* (Pl. I) too allows of more than one interpretation. In ancient Greece the word implied a collection of paintings, or sculpture, or rather the room in which they were exhibited. Pliny wrote of " pictores quorum tabulae pinacothecas inplent ",[10] but a catalogue of 1694, of a collection at Gothenburg, was entitled " Catalogus . . . rerum curiosarum tam artificialium quam naturalium in Pinacotheca Olai Bromelii ". Neickelius, the author of the eighteenth-century *Museographia* alternatively used the words gallery and pinacotheca as denoting collections of paintings.

Other terms apparently connected with the room in which the specimens were housed by private collectors were *Cabinet*, often used in English, French and German, or *Chamber* and *Closet* (" Chambre " in French and " Kammer " in German). Very often these words appeared hyphened with another specifying the character of the collections, such as a " Cabinet of Coins " or a " Chamber of Rarities ". When Henry, Prince of Wales, was given his own establishment, Inigo Jones was appointed, in 1611, his Surveyor of Works and built at Whitehall a room for the collection of pictures known as the " Cabinet Room ".[11] An implication of these terms seems to be the privacy into which the owner or the student of the collection may retire for the contemplation of the specimens. The connotation of privacy similarly underlies the term *Penetralia*, used, for instance, in connection with the collection of Alfonso, Prince of Aragon and master of Naples in the middle fifteenth century. The contemporary author, B. Facius, wrote of his " penetralia ", a remote

room in the palace of Naples, where he kept Flemish paintings, by Eyck and Rogier.[12]

In Dr. Johnson's view a Museum was a *Repository* of learned curiosities. His stress on the aspect of preservation was included in the term " Conditorium rerum peregrinarum ", used by Leibnitz,[13] though in its original meaning the *Conditorium* was a repository of dead matter, mainly of ashes remaining after cremation. A repository in the sense of a storehouse was the *Guardaropa* of the early Renaissance collectors, with a connotation of storage of personal belongings. In the fifteenth century, Jean de Berry, Duke of Burgundy, kept his splendid collection of coins, goldsmith-work, precious stones and rarities in his Guardaropa and so, in the sixteenth century, did Cosimo Medici in Florence.[14] The Guardaropa of the Este in Mantua contained, in addition to jewels, vessels of precious metal, armour and a variety of other items, paintings by great masters, by Mantegna, Bellini and others. From these places of storage specimens were temporarily transferred to the apartments. As an alternative to guardaropa there appeared the term *Anticamera*, sometimes used by Vasari, to describe a room in which paintings not immediately required were kept by their owners.

A connotation of private studio, storage accomodation and, perhaps, an opportunity for decorative display, seems implied in the term *Scrittojo*. The word may denote both a piece of furniture and a room. The inventory of the contents of the Medici palace in Florence, of 1493, referred to the Scrittojo next to the Sala Grande where, in a fine case, the most valuable things were kept, such as jewels, vessels of semi-precious stones and unicorn horn.[15]

The contents of the collections seem to have led to the use of some other terms. There was the *Rarotheca*, which is self-explanatory, further the *Cimeliarchium* and the *Thesaurus*, both with the inference that the specimens had exceptional material value. The Cimeliarchium originally indicated the place where jewels were deposited, whereas the Thesaurus may have meant not merely a stored treasure but a secret hoard. In ancient Greece subterranean chambers under some of the temples were referred to as thesauri and were probably used as storage rooms for treasures. According to Roman law a thesaurus was a treasure which had been hidden so long that all circumstances relating to its deposit were forgotten.[16] Later collections termed Thesauri would for this reason not necessarily differ from others

referred to as cabinets or chambers of rarities or, perhaps, galleries. The collection of the Princes of Brandenburg in the seventeenth century was known as Thesaurus Brandenburgicus, although in addition to a fine selection of coins and gems it represented an accumulation of " Artificialia " and " Naturalia " in the manner of numerous other contemporary collections.[17]

On many occasions several terms were declared to be of identical meaning. Zedler's *Universal Lexicon* identified both the " Cabinet " and the " Kunst-Kammer " with the " Museum ", and in the *English Dictionary* of 1737, by Nathan Bailey, the Museum was defined as a " Study " or " Library ". In his *Museographia* of 1727, p. 409, Neickelius referred to what was usually called a Chamber of Rarities as " Schatz-Raritaeten-Naturalien-Kunst-Vernunft Kammer " (chamber of treasures—rarities—objects of nature—of art and of reason).

It seems difficult to assess how far, if at all, the lack of precision in the choice of those terms, and their use in relation to certain kinds of collections, may be regarded as an indication of vagueness in the conception of these collections of the sixteenth, seventeenth and eighteenth centuries, which were the forerunners of the Public Museum. The characteristics implied in those terms may potentially exist in the present Museum. The following qualities, both spiritual and material, seem to be inherent in them : interest in learning and encyclopædic approach to inquiry ; inspirational values ; privacy and secrecy ; rarity ; boastful costliness ; features connected with storage accommodation and with the hiding of things.

Which of these connotations are still extant, which are missing, and which furthermore seem desirable in the Public Museum of our times, and which not ? These are some of the fundamental queries which it will be the task of this essay at a later stage to attempt to answer.

REFERENCES AND NOTES

1. Pauly-Wissowa, *Real-Enzyclopedie der Klassischen Altertumswissenschaft*, Stuttgart, 1935, vol. 16, pp. 797 sq.

Wilamowitz-Moellendorf, " Antigonus von Karystos ", *Philologische Untersuchungen*, vol. IV, Berlin, 1881.

2. The Museum at Alexandria was a foundation of the Ptolemies in the later part of the third century B.C. and existed up to the fourth century A.D.

Pauly-Wissowa, op. cit., pp. 801–21.

Parthey, G. F. C., *Das Alexandrinische Museum*, Berlin, 1838.

Schreiber, T., " Alex. Toreutik ", *Abhandlungen der Kgl. Saechsischens*

3. *Museum Britannicum*, or a display in 32 plates of antiquities and natural curiosities in that noble and magnificent Cabinet the British Museum, after the original designs . . . by Rymsdyk, J. and A., London, 1791.

4. The term " encyclopaedia " is believed to have been used in England for the first time in Sir Thomas Elyot's *Latin Dictionary* of 1531, where it is explained as the learning that comprehends all liberal sciences and studies. Chamber's *Enciclopædia* goes back to 1728, and the French *Enciclopédie* connected with the famous " Enciclopedistes ", to 1751.

5. The Muses of Greek mythology were the daughters of Zeus who by their dance and song helped men to forget sorrow and anxiety. Their birth was a memorial to the new order which their father, through his conquest of the Titans, had brought into the world. They were credited with creative imagination, with infinite memory, with which they could succour mortals, and with foresight. The remembrance of glorious events of the past, folk-art, music and poetry, gentle gaiety and harmony were associated with the Muses. Decharme, P., *Mythologie de la Grèce Antique*, Paris, 1879.

6. The distinction between " Museum " and " Gallery " is more customary in Great Britain than in other countries.

7. In his account in *The New Atlantis* (London, 1660, pp. 61–71) of an imagined ideal community, F. Bacon described the monarch's palace, and the " Gallery " and " Closet " in that palace. According to this description there were in the long and large Gallery " statues of all the prime inventors in many past ages (of paper, glass, gunpowder . . .) ", discoverers of lands and artists, physicists, mathematicians and doctors. After having passed through the Gallery the visitor was told by his guide that now his phantasie would be entertained by being shown various Rarities and was led into a little Closet at the end of the Gallery where he saw among other things precious magic stones, sympathetical powder and purified ice.

Compare Appendix, p. 229, extracts from Ray's description of the Medici collection at Florence.

8. *Enciclopedia Italiana*, 1934, " Museo ".

With respect to the collection on Castle Ambras, Tirol, the following reference was made : " . . . und eine schoene lange galeria so zu beiden Seiten Fenster hat, hoch, und gar licht ist . . ." Zeiller, M., *Itinerarium Germaniae* (Reyssbuch durch Hoch-und Nider Teutschland . . . und benachbarte Lande), Strassburg, 1632, p. 349.

9. " . . . per trattenersi à passeggio i personaggi nelle corti, le proportioni loro si cavano dalle Loggie ; mà sono alquanquanto meno aperte di esse . . . si sono introdotto nelle case di molti . . . Gentilhuomini, e persone virtuose il far raccolte, e studij di . . . Marmi, e Bronzi, e Medaglie . . ." Scamozzi, *L'Idea della Architettura Universale*, Venice, 1615, vol. I, p. 305.

10. Plinius Secundus, *Naturalis Historiae Libri XXXVII*, Lib. 35. 11(4)48, Lipsiæ, 1857–60, Janus, L., ed.

Vitruvius, *De Architectura*, libri decem, Lugd., 1586, pp. 17, 228, 236.

Bonnaffé, E., *Les Collectionneurs de l'ancienne Rome*, Paris, 1867, pp. 53 sq.

Julius, L., " Die Gemaelde des Polygnot in der Pinacothek der Propylaen ", *Mitteilungen des Archaeologischen Institutes*, Athens, 1887.

Compare on the subject of the " gallery " Frimmel's *Handbuch der Gemaeldekunde*, Leipzig, 1904, pp. 271 sq.

11. Hervey, M. F. L., *The Life, Correspondence and Collections of Thomas Howard, Earl of Arundel*, Cambridge, 1921, p. 62.

Compare a seventeenth-century account, by J. Ray, of the " closet " in the Palatine Prince's palace at Heidelberg and the " cabinet " (or " musaeum ") of the Duke of Modena.

12. Facius, B., *De Viris illustribus*, ed. by Mehus, Florence, 1745, pp. 46, 48.

13. Leibnitz, G. G., *Protogaea*, sive de Prima Facie Telluris et Antiquissimae Historiae Vestigiis. . . . Dissertatio. Goettingen, 1749, para. XXXV, p. 63.

Compare Appendix, p. 227, extracts from Browne's account of the imperial collections in Vienna in the seventeenth century.

14. " Guarda robba del Gran Duca piena di preziosi, e ricchi arnesi, di gran numero di tavole dipinte da' migliori maestri . . ." Bocchi, M. F., *Le Bellezze della citta di Firenze*, ed. by Cinelli, M., G., Florence, 1677, p. 95 (first published in 1591).

Compare the inventory made after her death in 1593 of the personal property of Queen Elisabeth of France; published as No. 12154 in the *Jahrbuch d. Slgen des . . . Kaiserhauses*, vol. XV, Vienna, 1855.

15. Compare Appendix, p. 225, the description of a sixteenth-century collection near Florence by the contemporary author Borghini.

16. Commentary to the *Prætorian Edict*, 31st Book, quoted by Pauly-Wissowa, op. cit. before.

Compare Appendix, p. 228, with an extract from Evelyn's seventeenth-century account of the Medici collection in Florence.

17. Beger, L., *Thesaurus Brandenburgicus*, Coloniae Marchicae, 1696–1701.

Beger, L., *Thesaurus ex Thesauro Palatino Selectus* . . . , Heidelberg, 1685.

CHAPTER II

SOME FUNDAMENTAL QUERIES AND AN APPROACH TO THEM

The Public Museum, as we know it, is a complex phenomenon. There is first of all the variety of contents : objects of art, skeletons of animals, machines, relics of human life in past periods, contemporary products, specimens of local geology, or crafts and articles from distant lands. Indeed, there is hardly any limit to the range of specimens in a museum, for these may include any object created by nature or by man, or a picture of such an object.

There is secondly the variety of environment in which the objects are displayed—a palatial structure with a wealth of decoration or a humble abode of a few low-ceilinged rooms, or a large building boasting soberness.

Then, too, there are the multitudinous ways in which specimens are displayed : in large or small numbers, and in a variety of combinations of different specimens, with chronology or geography or raw material serving as the principle underlying the arrangement, but this principle more often than not hampered and made ineffective by the multiplicity of items which frequently results in chaos.

Current attempts at a definition of the museum do not go far towards clarifying the issue " A Museum—what is it ? What purpose does it serve ? " As a rule the main functions of the museum are defined as providing instruction and enjoyment, and serving for the preservation of objects for future generations. Yet this definition, it would appear, by its width suffers from vagueness and does not really outline ways of action. Both instruction and enjoyment are terms of considerable scope and shade of meaning. Instruction—in what and for whom ? When referring to other centres of instruction one is accustomed to specify the syllabus and to relate it to potential students. In regard to museums, however, these important aspects do not seem to receive sufficient attention, at least not in Europe.

How then did this complex phenomenon, the Museum, come into being ? Was it the invention of one brain or of a few individuals who had some fixed purpose in view ? Did it orig-

inate at a certain period, or in a certain land? Are its complexity and the lack of cohesion between its single features a genuine characteristic of the museum or a symptom of yet unachieved development, or of ill-directed growth?

The account of the history of the museum will be divided into two main parts, into an account of the evolution of the Public Museum in the present sense of the term, preceded by a survey of its earlier ancestry, in the form of collections owned by private individuals or housed in temples and churches, or, even more easily accessible to everybody, out in the streets of towns.

A description of collections may be given according to time or area, i.e. historically or geographically; or they may be described in relation to the function of the different collections in their respective society, both in the life and in the imagination of the men and women who assembled and treasured them. This latter principle was decided upon by the present writer, who believes that the principle of order has to be related to the materials concerned, that different materials require the application of different principles of approach, and that products of man are to be measured by standards different from those applied to products of nature. It is one thing to list plants, and quite another to list collections. To state facts concerning the physical properties of a mineral may be regarded as satisfactory, whereas a similar statement in regard to a tool does not exhaust the issue, for there still remains the need to tell what the function of that tool was in the life of the people who used them, both from the standpoint of its actual practical service and of the rôle it played in people's imagination.[1]

The relationship between human beings and the objects they produce is far from being a simple one-track process. When people produce a tool, they do so for a certain concrete purpose, but, in addition, the traditions of those particular people, formed, maybe, under conditions widely differing from the existing ones, influence the shaping of the tool, so that in fact it has to meet both the needs of the present and the shadow requirements of the past. Apart from serving the purpose of digging or cutting, the tool may be endowed with certain features meant to add to the owner's social prestige; or a certain characteristic may be wanted in the tool which will evoke in the minds of the people confidence in the success of the work to be performed; or which affects some other superstition which, by its impact on the emotions of the people, may lead to certain concrete results. A

collection is an assemblage of various objects, and whether the single specimen is a product of man or of nature, the collection as a whole is a creation of man. Hence the choice of function as the principle in setting out the data of an outline of a history of collecting.

REFERENCES AND NOTES

1. Hayek, F. A., " Scientism and the Study of Society ", *Economica*, London, 1942.

Compare further Lewin, K., *Dynamic Theory of Personality*, New York, 1935, where it is advocated that as much attention should be given to the situation and the structure of which an object forms a part as to the object itself, and that causes of events should not be sought in the nature of single isolated objects but in the relationship between the object and its environment.

CHAPTER III

COLLECTIONS OTHER THAN PUBLIC MUSEUMS

The foundations of the existing Public Museum were laid in numerous preceding collections owned mainly by private individuals, but also by religious bodies, by public authorities or groups of people united by a common pursuit. An attempt to classify these collections according to the function, or functions, they fulfilled in their society, resulted in the following list :

(1) Economic Hoard Collections.
(2) Social Prestige Collections.
(3) Magic Collections.
(4) Collections as an expression of Group Loyalty.
(5) Collections stimulating Curiosity and Inquiry.
(6) Collections of Art stimulating Emotional Experience.

For the sake of clarity in this survey collections will in most cases be dealt with as illustrations of one single function, that which would seem to have been their principal one, although in reality, of course, one collection may have served several purposes. It is by no means suggested that this enumeration covers all possible functions of collections. There may be others, within and without European Society.

Section I

Economic Hoard Collections

An ancient hoard collection has been preserved to us in Homer's description of Priam, King of Troy, who gathered in his treasure chamber offerings that would redeem the body of his son Hector, slain by Odysseus, from the besieging Greeks. The pertinent passage in the *Iliad* runs :

> He spake and opened the goodly lids of the chests wherefrom he took twelve beauteous robes and twelve cloaks of single fold, and as many coverlets and many white mantles, and therewithal as many tunics . . . of gold he weighed out and bare forth talents, ten in all, and four gleaming tripods, and four cauldrons, and a cup exceeding fair, that the men of Thrace had given him when he went thither on an ambassage, a great treasure ; not even this did the old man spare in his halls, for he was exceedingly fain to ransom his dear son.[1]

Similar hoards were ascribed by Homer to Odysseus himself, and to Menelaus of Sparta. The excavations at Hissarlik,[2] which Dr. Schliemann claimed to be ancient Troy, and at Mycenæ,[3] made the hoard collections of the ancient Euro-Asiatic world tangible. These treasure chambers feature the economic conditions of a period when production aimed mainly at satisfying the needs of the producer himself, when exchange of goods by trade was very limited and currency in the form of standardized money, as we know it, hardly existed. The few who possessed more than required for the satisfaction of their immediate needs stored their surplus : foodstuffs if not too quickly perishable ; garments woven in the household ; and better still, metal, whether in the form of ingots or of finished articles, be it for future use or for the purpose of exchange in barter trade.[4] Durability and divisibility without loss of value make metal superior to almost any other material, and once the process of smelting has been discovered, metal enables a greater variety of objects to be fashioned than is possible in the case of any other material. The possession of precious metals in ancient times represented condensed wealth as nothing else could, and this fact decided the fate of nations. The silver of the Attic mines gave Athens the power to master other Greek cities, and the silver mines of Spain enabled first Carthage, then Greece, and

the community, and a variety of valuables joined the specimens of precious metal. The administration of the community, so immensely increased in area and in the number of its inhabitants, did not keep pace with the military achievements that had created the grandeur. The war indemnities and the booty from conquered lands, together with the taxes drawn from them, were not long directed to the common treasury, but remained in the grasping hands of people immediately connected with the military conquest.[9]

Sulla, notorious also for his hoarding, was among the generals who had fought the victorious battles abroad and succeeded in establishing themselves for a period as dictatorial rulers at home. It fell to his lot to plunder Athens and Delphi. When in command of Rome he attended personally at auctions where the property of people whom he had sent into exile was offered for sale, and saw to it that the estates, houses and works of art fell to his partisans. Whatever the character of things so won, he called it " booty " (*praeda*). General Mummius brought from his campaigns paintings and marble statues, others chose bronzes and tapestries. Quantity seemed to be valued as much as quality by these collectors, and Scaurus, Sulla's son-in-law, had in his private theatre more than 3,000 statues.

In one of the rhetorical accusations in which he excelled, Cicero gave a description of the hoard of Chrysogonus, one of Sulla's lieutenants. He described his palace " filled with vases from Delos and Corinth ", his silversmith work, tapestry, paintings, statues, and marbles, and ended up by exclaiming, " There you see what was to be carried away from the rich families in these times of trouble and robbery to pile it up in a single palace ".[10] In his indictment against Verres, the corrupt Governor of Sicily and perhaps the most famous of the Roman collectors, Cicero, the lawyer, asserted that in all Sicily, there was no object of gold or jewel, no marble or ivory statue, or embroidery, not a single silver vase or a bronze figure from Corinth which was in the possession of the state or of a private family which Verres did not seek, did not examine and did not take away when he liked the object.[11] Some years later Cicero himself owned eighteen villas filled with works of art. He, too, succumbed to the mania of hoarding.

Even if not transmutable into coins in the direct manner of the Greek votive offerings sent to the mint, the contents of the

Objects of gold and silver, and precious stones, were much sought after and the prices paid for certain things were fanciful. Objects often changed hands not only through the vagaries of politics, but by way of sale and purchase. Auctions were held regularly and shops were opened in the vicinity of the Via Sacra and the Via Septa.

The economist W. Sombart suggested that the hoarding of precious metals in the form of bullion went on in Europe till the thirteenth century, to be replaced then by the hoarding of coined money. In the period following upon the disintegration of the Roman Empire, wealth in dynamic form, as organized production and trading, disappeared from the West, the population of western Europe decreased in numbers and reverted to the primitive economy of small, self-providing areas.[12] In this process of reorganization the possession of an economic hoard was a matter of growing importance to those who strove for power. Among the nomadic peoples the leading families sought to lay up a store of gold. In 568, Leuvigild, King of the Visigoths, exhibited his treasure as he sat on his throne in royal robes. From his day onwards, the bulwarks of kingly power were " realm, people and treasure ".[13] For many centuries the treasure chamber was a feature of princely residences, and traces of it can be seen in almost every European capital, even if in later days the emphasis to a considerable degree shifted from the purely material value of its contents to symbolic ones, to the association of the objects with certain national events and outstanding personages.

In the Imperial " Schatzkammer " in the castle of Vienna, which had been the home of the Hapsburg dynasty, crown jewels and other valuables were exhibited till 1938, if not later, and enshrined traditions going back to the mediæval treasure chamber of the Dukes of Burgundy, to whom the Hapsburgs were related by marriage (Fig. 1). The Dukes of Burgundy held a first place among the collectors of the early fifteenth century, but after the battle of Agincourt, in 1415, in which Burgundy lost its short-lived glory or predominance in French and European affairs, part of the famous goldsmith work of Jean de Berry, Duke of Burgundy, was sent from his castle Mehun-sur-Vevre to the mint, to provide badly wanted funds for state expenses.[14] The inventory of the collection became a useful guide to objects which escaped destruction and appeared later in the treasure chambers of the Hapsburgs at Vienna and at Madrid. The palace at Madrid was destroyed in the conflagration of the resi-

Fig. 1.—The treasure chamber of the princes of Hapsburg, rulers of Austria. Woodcut by Albrecht Altdorfer, of 1515, from the series of illustrations known as *Die Ehrenpforte* (Arch of Honour) in which homage was paid to the reigning emperor Maximilian I. According to this picture the contents of the Hapsburg treasure chamber were ordered in three groups :—plate, reliquaries and vessels for church service, and imperial insignia. In the foreground stands a chest with coined money of which, in reality, Maximilian I was often short.

dence in the eighteenth century, but a description of it has been preserved in a paragraph which may be translated as follows : " The treasure chamber is next to the room inhabited by the royal children. There is, among the crown jewels, a flower in the shape of a lily made of gold measuring half a rod (one rod equals roughly 30 inches) in height, and not much less in width, and edged with precious stones. It originally belonged to the Dukes of Burgundy. Further, there is a diamond of the size of one *real*, or two *reales*, and valued at two thousand ducats. Attached to it is the famous pearl called for its uniqueness ' the orphan ' or ' the stranger '. Its size is that of a hazel-nut, and it is believed to have the value of thirty thousand ducats." [15] In the " Green Vaults " in Dresden, the famous collection of the princes of Saxony, which is one of the few contemporary museums which have preserved much of their ancient character, a special trapdoor led down to the " secret hoard " (" geheime Verwahrung ").

Apart from the accumulation of surplus in the form of money, a tendency towards the more primitive forms of economic hoarding reappeared at various periods of European history, and was an indication of political insecurity and of retrogression in economic conditions. In times of war and civil strife people came to regard a weight of sheer gold or silver, or precious stones, as the best means of making provision for the future. Precious metals represented value negotiable internationally, they were durable, divisible without loss of value, and within certain limits, portable. In sixteenth-century Sweden, at the time of the warrior-king Gustavus Adolphus, the peasants liked to invest their savings in spoons of heavy silver ; in the eighteenth century in France, at the period of Law's experiments in currency, people had articles of everyday use fashioned in gold and silver. In the present century, in which problems of trade and currency have developed to a complexity and subtlety as never before, there have been further relapses into primitive hoarding. In periods of war and inflation men again have confidence in the simple tangible bar of gold and treasure any possession of inherent timeless value, whether jewels or works of art of established reputation, and feverishly store foodstuffs and other articles of use. They go about their hoarding in silence, keeping it secret from their neighbours, their minds uneasy through fear of theft. Soon the old legend of the Thesaurus reappears, of the hoard left behind by refugees in their flight, buried in a field or bricked

in the wall of a cellar, forgotten, and waiting to become the property of a lucky finder. The legend once and again stirs human imagination and in some cases proves to be sober reality.

Sometimes the Economic Hoard reappeared in guises that at first sight may not seem connected with their original form. There was the collection, valued for the sheer numerical quantity of its specimens, whether truly valuable or not. In this case quantity was appreciated as a quality in itself, equal to, or over and above, all other qualities. Philip IV of Spain, the most passionate collector of Madrid among numerous " Aficionados " in the Spanish capital and one whose collecting seems to have had various motives, appears in certain respects as one who craved for so many different objects because none afforded him genuine satisfaction. It was his fate to be the sovereign of a country of great traditions on the verge of ruin, and to be mocked by the travesty of almost divine honours paid to him in his immediate environment. His courtiers called him " Rey Planeta " ; was any collection exquisite enough and large enough for a Planet King ? He created a substitute world for himself, a continuous series of festivals, games, theatrical plays, and collections never to be completed.[16] His desire to outshine all other collectors appears from a dialogue, more likely imagined than genuine, but probably containing a grain of truth, between the King and Velazquez, his court painter. In this conversation the King spoke of his desire to add further paintings to his gallery. Velazquez answered : " His Majesty ought to possess better paintings than any other man." The King : " How could this be brought about ? " Velazquez : " With your permission, Sir, I would venture to go to Rome and to find the best pictures ever painted by Titian, Veronese, Bassano, Raphael, and other artists of similar quality. . . . I'll seek these works with great zeal and return with a great number of pictures . . . and with ancient statues and casts as well. . ."[17]

Philip IV as collector had for his field all Spain, Italy, and the Low Countries. Italian churches were ransacked ; the owners of private Spanish collections were forced to open their doors to royal envoys requiring certain objects of art as " presents " for the King. To escape the menace of being either robbed of their treasures or punished for lack of loyalty, people decorated their walls with copies of the pictures whose originals they had contrived to hide. To add to Philip's hoard-collection an army of men was set in motion ; they travelled far, created master-

pieces, bargained, cheated, were decorated, made fortunes, were sent into exile and to prison. Hardly had he obtained the urgently sought objects for one of his palaces than he turned his attention to another place or another hunting box as an excuse for more collecting and as a shell to be filled with further hoards. For all the delight he took in the quality of a fine painting or sculpture, the numerical quantity of his possessions undoubtedly afforded him great satisfaction, not necessarily on account of their potential power if transmuted into money, but through dim feelings of satisfaction derived from owning or being surrounded by such splendour.

Another variety of the economic hoarder appears to be the familiar type of collector who is a hunter for bargains. He too rarely specializes in certain kinds of specimens but reacts to any. In his case the appeal of objects of interest and beauty is second to their attraction in relation to a possible increase in their market value. Among the reasons that induces him to collect at all, may be the fact that the market value of specimens of collections, be they works of art, or curios, is far more elastic than that of utilitarian commodities. The *marchand-amateur*, who constantly buys and sells, was a representative figure in the nineteenth-century world of collectors, and existed before and after that period. The impulses guiding his activities may differ and a near balance between commercial interest and æsthetic sensations may create a mental conflict of some subtlety.[18] The term marchand-amateur covers a series of human characters—the business man, the gambler, the adventurer, the æsthetic amateur. All may be embodied in one man, and one person may in different circumstances develop different tendencies. It would be of some interest to study collections assembled by marchand-amateurs as reflections of human variability.

REFERENCES AND NOTES

1. Homer, *The Iliad,* XXIV, 229–38 ; transl. by A. T. Murray. The Loeb Classical Library, London, 1925.

2. Schliemann, H., *Ilios. The City and Country of the Trojans*, London. 1880. Compressed into a shapeless mass and under heaps of rubbish, Dr, Schliemann found at Hissarlick ingots of gold, half-finished articles and vessels, weapons, cauldrons and ornaments of gold. The excavator regarded these objects as a part of the royal treasury described by Homer, which had been destroyed in the course of a conflagration and had remained buried for thousands of years.

3. Dr. Schliemann claimed to have opened at Mycenæ the tomb of Agamemnon, known as the Treasury of Atreus, which enshrined another collection of objects of gold, swords, goblets, diadems, buttons and masks.

Pausanias, who in the second century A.D. had visited Mycenæ, referred to the places where Atreus and his sons had kept their treasures. *Description of Greece*, ed. by J. G. Frazer, London, 1898.

4. " It seems, in fact, chimerical as though men had agreed upon these metals (gold and silver) as a symbol for which they should strive and labour, fight and die. The myths, the Golden Fleece, Midas, the Rheingold, show us the desire for gold acting as a powerful impulse among quite simple societies. It entered into the ambitions of Darius and of Alexander, into the conflicts of Rome and Carthage." Nussbaum, F. L., *A History of the Economic Institutions of Modern Europe*, New York, 1933, p. 95.

5. *Cambridge Ancient History*, vol. IV (1926), pp. 40, 50, 101, 118, 264 sq. ; vol. VII (1928), pp. 778, 792 ; vol. VIII (1930), pp. 307–9, 311.

Rickard, T. A., *Man and Metals*, New York–London, 1932, vol. I, pp. 278–9.

6. Ferguson, W. S., *The Treasurers of Athena*, Cambridge, Mass., 1932, p. 107.

7. Thucydides, *History of the Peloponnesian War*, Book II, XIII, 4, 5. Loeb Classics, 1919, transl. by C. Foster Smith.

8. The bullion of silver weighing 14,342 pounds carried in the triumph of Publius Scipio on his return to Rome in the year 207 B.C. was sent straight to the Public Treasury and so five years later was bullion weighing 123,000 pounds. See Rickard, T. A., op. cit. above, vol. I, p. 280.

Livius, *The History of Rome*, Book XXXIV, chap, 21 ; Book XLV, chap. 40, Bohn's Classical Library, London, 1849–50, transl, by W. A. M'Devitte.

9. Cicero, *The Verrine Orations*, p. XI, etc., transl. by L. H. G. Greenwood, Loeb Classical Library, London, 1928.

Bonnaffé, E., op. cit. (p. 7, n. 10).

10. Cicero, *Pro Sexto Roscio Amerino Oratio*, XLIII, 124 ; XLVI, 133. Ed. Buechner, G., Lipsiæ, 1835.

11. Cicero, op. cit. above, (9) Second Speech against Gaius Verres ; Book IV.

Compare an article on the " Trésor de Bosco Reale ", by Bonnaffé, in the *Gazette des Beaux Arts*, Paris, 1896.

12. Nussbaum, F. L., op. cit. above, p. 20.

13. Sombart, W., *Der Bourgeois*, Munich, 1923, p. 32.

14. Compare Schlosser, J., *Die Kunst- und Wunderkammern der Spaetrenaissance*, Leipzig, 1908.

Schlosser, J., *Die Schatzkammer des Allerhoechsten Kaiserhauses*, Vienna, 1918.

Weixlgaertner, A., " Die Weltliche Schatzkammer in Wien ", *Jahrbuch der Kunsthistorischen Sammlungen*, New Series, vols. I and II, Vienna, 1927–28.

15. " En otro patio (del palacio) tienen su cuarto los infantes de Castilla, cerca de el está el guardajoyas. . . . Una flor de lis de oro media vara de alto y poco menos de ancho, bordada de piedras preciosas, que fué primero de duques de Borgoña, un diamante de tamaño de un real de á dos valuada en doscientos mil ducados, del que pendia la famosa perla llamada, por ser sola, la " Huerfana " (ó la Peregrina) del tamaño de una avellana, tasada en treinta mil ducados." Mesonero Romanos, R. de, *El Antiguo Madrid*, 1861, pp. 26–7.

Compare Evelyn, J., *Diary and Correspondence* (written 1641–1706), London, 1857.

On the 17th October, 1644, with reference to the palace of the Prince of Doria at Genoa.

" . . . The house is most magnificently built without, nor less gloriously furnished within, having whole tables and bedsteads of massy silver, many of them set with agates, onyxes, cornelians, lazulis, pearls, turquoises, and other precious stones. The pictures and statues are innumerable . . ."

Compare Appendix, pp. 226–30, extracts from seventeenth-century descriptions of Castle Ambras in Tirol, of the imperial collection in Vienna, and the Medici Palace, Florence.

Compare also the description by Sansovino, of the metalwork and jewellery accumulated in San Marco in Venice. *Venetia, Citta Nobilissima e Singolare*, Venice, 1663, pp. 102–3.

16. Hume, M. A. S., *The Court of Philip IV*, London, 1927.

Justi, C., *Miscellaneen aus Drei Jahrhunderten Spanischen Kunstlebens*, vol. II, Berlin, 1908.

17. Martinez, J., " Discursos practicables del nobilissimo arte de la Pintura ", *Fuentes Literarias para la Historia del Arte Español*, ed. by Sanchez Canton, F. J., Madrid, 1937, vol. III, p. 37.

Velazquez : " Vuestra Majestad no ha de tener cuadros que cada hombre los pueda tener."

El Rey : " Como ha de ser esto ? "

Velazquez : " Yo me atrevo, Señor, (si Vuestra Majestad me da licencia) ir a Roma y a Venecia a buscar . . . los mejores quadros. . . ."

18. " . . . l'argent avait une place marquée dans toutes les combinaisons secrètes de l'éminent curieux (Mazarin)." Lemaitre, A., *Le Louvre, Monument et Musée, depuis leurs origines jusqu'a nos jours*, Paris, 1878, p. 253.

Section II

Social Prestige Collections

Hoarding—a method of condensing wealth for potential use in the future or of satisfying a craving for possessions—is prompted by a fear of defeat in the struggle of life and is an obvious aspect of human behaviour. The function of the hoard stands in a clear relation to a human situation, but the equation appears less simple in the case of collections which, though they may possess the value of economic hoards, seem to fulfill their main function by enhancing their owner's social prestige.[1] The actual material value of such collections is likely to be inferior to the impression of wealth they evoke in spectators' minds, and the difference between their actual and apparent importance is due either to a conspicuous manner of display, to some false pretence in the character of the specimens, or to both causes in combination.

A concrete instance may best serve to illustrate the " boastful " collection. A Greek description of a festive procession held in Hellenistic Alexandria in the third century B.C., has come down to us and has given permanence to what once was a mobile collection.[2] King Ptolemy Philadelphus ordered the arrangement : thousands of slaves, prisoners of war and natives walked in procession carrying vessels of gold and silver, golden crowns and shields, gilded images and figures symbolizing myths, the total value amounting to thousands of talents ; they were followed by rows of sacrificial oxen and by a display of elephant tusks, of hides and tapestries. Music and showers of flowers were an accompaniment of the procession which was outstanding in its quantitive aspects as well as in its qualitative values. Apart from their sheer number, the size of some of the items was impressive : there were golden torches 15 feet in height, gilded braziers 18 and 22 feet in circumference and figures standing as high as 30 feet.

Notwithstanding the costliness of the objects displayed in the procession, their effect on people is likely to have outweighed their market value. It was the concerted performance that mattered most. In overwhelming numbers, the single vessel or figure became priceless, and attained quite extraordinary standards when presented against a background of youth, of bands

of conquered enemies, of animals of perfect breed and of the splendour of flowers and music. Inevitably such a display contributed to the aggrandizement of the monarchs, not merely among the people who viewed the procession, but among those, much more numerous, who shared secondhand in the performance through tales and rumours of the splendour.

Ostentatious display seems to have been the main concern of some Roman collectors. The freedmen who among other luxuries had houses built on pillars of alabaster and tortoise-shell, water-pipes made of silver, and vessels of gold, probably enjoyed living in such surroundings, but at the same time the costly materials of the furniture screened the humble origin of their owners.[3] To a certain extent any of the Roman collections described in the chapter on Economic Hoards could be quoted again under the heading of Social Prestige.

Collections of vessels of precious metal and stone were a familiar feature of later princely courts. After his visit to Hampton Court in 1520 the Venetian Ambassador wrote : " The whole. . . . hall being decorated with huge vases of gold and silver that I fancied myself in the Tower of Chosroes where the monarch caused divine honours to be paid to him." Another envoy of Venice reported having seen gold and silver plate to a value of 300,000 ducats (£1,500,000 present value).[4] The French king Francis I's residence could boast of a great number of vessels of semi-precious stones, agate, chalcedony and jasper, and in Versailles, too, the later French monarchs took pride in the possession of candlesticks and other objects designed by artists and executed in gold of heavy weight.[5] In his description of the " main cabinets " of collectors in seventeenth-century Paris, Abbé de Marolles described two collections—those of the duchess d'Aiguillon and of Mme de Chauigni—as follows : " These cabinets are second to hardly any other in the splendour of their crystals, agates . . . chalcedonies, corals, amethysts . . . garnets, sapphires, pearls and other stones of great value which are set in silver and in gold in the shape of vases, statues, fans, mirrors, globes, candleholders . . . and other similar objects."[6-7]

No country equalled Spain in the accumulation of household articles.[8] It required six weeks to weigh and list the vessels of gold and silver in the house of the Duke of Albuquerque at the time of his death. In spite of the recurrent Sumptuary Laws issued by the King, forbidding the exaggerated use of precious metals for furniture, the sister of Philip II had round her bed a

balustrade of silver weighing 121 pounds. The King's secretary, Antonio Perez, kept many "plateros" (silversmiths) busy, and possessed beds, chairs, and tables made of silver. One of his silver braziers cost 60,000 ducats. Conde de Villalonga, court justicier in the early seventeenth century, possessed twenty-four fountains of silver studded with precious stones, 4,000 plates and an entire kitchen equipment of silver. The Countess's desk was of gold.

The tendency to amass household articles of precious metal was symptomatic of the state of economy and of the trend of mind in Spain in the later sixteenth and the seventeenth centuries. The Peninsula was living a Don Quixote existence. In the centuries of fight against the Moors in the south of the country, the Spaniards had become alienated from the arts of peace and had developed standards of value according to which work on the land, in industry and commerce were inferior occupations. While the silver and gold of the American mines was shipped to Europe under the Spanish flag, Spaniards took hardly any part in utilizing the potentialities of the bullion. They allowed foreigners to develop trade and industries on the stimulus of the influx of immense capital while they themselves found anachronistic delight in the possession of static hoards, cherished mainly for their prestige value. During the centuries of religious warfare in Spain a new type of man emerged, that of the gentleman who without the drudgéry of professional occupation, had command over riches, his heritage marking his descent from noble conquerors. In their desire to manifest the excellence of their family tree, these Spaniards developed many conspicuous habits and regarded household articles of silver and gold as an excellent means of displaying wealth, genuine or faked. An ordinance of Philip III, of the year 1600, which requisitioned all vessels of gold and silver in the country in order to have them melted and coined for the benefit of the Exchequer, met with little success. In fact, the fashion spread over the frontiers of Spain and finally degenerated into a nineteenth-century European middle-class fashion of desks and cupboards covered with inexpensive shining gold paint.

Another variety of the boast-collection may be illustrated by a further Spanish example. Philip IV ordered Rubens to decorate one of his reception rooms in the royal palace El Retiro near Madrid with wall paintings representing twelve Spanish victories in war. At the same period, at the much-frequented

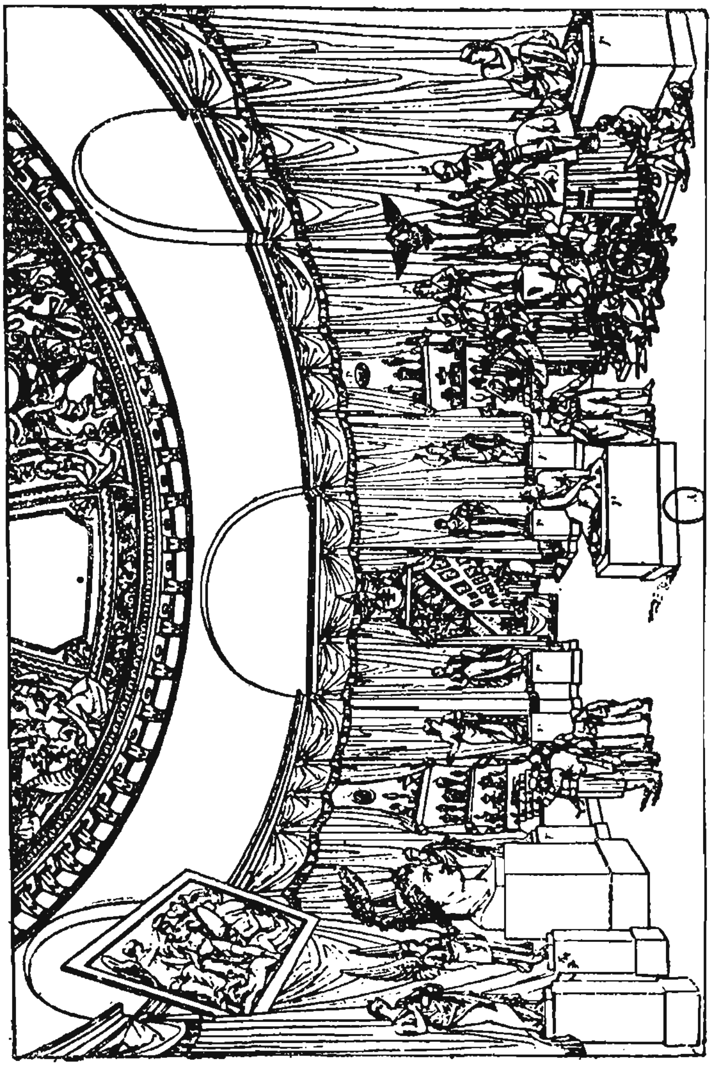


Fig. 2.—A hall in the Musée Napoleon, Louvre. (After Saunier.)

theatre of Madrid, a play was performed which was entitled " Las Victorias del Año 1638 ". Both the collection of paintings and the play performed a propaganda function and aimed at the denial of commonly known facts—the decadence and the ruin of a country of fallow fields, dead industry, and destitute population.

Another instance of a collection that would appear to have satisfied a desire for prestige on a scale of megalomania, was the art collection assembled in the Musée Napoléon in the Louvre (Fig. 2). From the territories conquered by the *grande armée*, famous works of art were sent to Paris. As a collector, as in all else, Bonaparte desired to be superior to others, and indeed, the Musée Napoléon became unique in regard to the quality, the variety, and the quantity of its specimens. The number of its ancient statues and paintings by famous masters ran into thousands. Yet the collection was, like its creator's career, of brief duration. The Congress of Vienna, which had the task of re-ordering the affairs of Europe unsettled by Bonaparte, decreed that the objects carried away from the invaded countries should be restored to their previous owners, so far as ownership could be established, and the Musée Napoléon, unique both as a collection of masterpieces of art and as a method of boasting, disintegrated.[9]

REFERENCES AND NOTES

1. About the rôle of wealth as a means of enhancing social prestige among primitive peoples, B. Malinowski in his *Argonauts of the Western Pacific*, London, 1922, wrote (pp. 169 and 173) : " (The display of food at festivals) shows that the accumulation of food is not only the result of economic foresight, but also prompted by the desire of display and enhancement of social prestige through possession of wealth. . . . Great quantities (of food) are produced beyond any possible utility they could possess, out of mere love of accumulation for its own sake ; food is allowed to rot . . . yet the natives want always more, to serve in its character of wealth."

2. Athenæus, *The Deipnosophists*, with an English translation by Gullick, C. B. The Loeb Classical Library, London, 1927–41 ; Book V, 196–203.

Boettiger, C. A., *Ueber Museen und Antikensammlungen*, Leipzig, 1808.

3. Friedlaender, L., *Roman Life and Manners under the Early Empire*, transl. by Magnus, London, 1908–13, vol. I, p. 45.

Curtius, A., *Kunstmuseen, ihre Geschichte und Entstehung*, Berlin, 1870, pp. 12 sq.

4. Law, E., *History of Hampton Court Palace*, London, 1890, vol. I. pp. 33, 80.

5. Dan, P., *Trésor de Merveilles de . . . Fontainebleau*, Paris, 1642.

6. In his *Memoires* (" Traitez sur divers sujets curieux "), Paris, 1657, vol. II (contn.), p. 267, Abbé de Marolles wrote with regard to two contemporary collections : " Ceux (cabinets) souffrent peu de comparaison pour la magnificence des cristaux . . . des agates, des calcedoines, des coraux . . . des ametystes . . . des grenats, des saphirs, des perles et des autres pierre

de grand prix qui y sont mises en œuvre dans l 'argent et dans l'or, pour y former des vases, des statues, des escrins des mirroirs, des globes, des chandeliers . . . et autres choses semblambles."

7. Compare Evelyn, op. cit. (p. 21 n. 15).

Entry of the 7th March, 1644 : " I set forwards with some company towards Fontainebleau, a sumptuous Palace of the King's, like ours at Hampton Court, about fourteen leagues from the city . . . This House is nothing so stately and uniform as Hampton Court, but Francis I began much to beautify it ; most of all Henry IV (and not a little) the late King. It abounds with fair halls, chambers and galleries ; in the longest, which is 360 feet long, and 18 broad, are painted the Victories of that great Prince, Henry IV. That of Francis I, called the grand Gallery, has all the King's palaces painted in it ; above these, in . . . excellent work in fresco, is the History of Ulysses, from Homer, by Primaticcio, in the time of Henry III. . . . The Cabinet is full of excellent pictures, especially a Woman, of Raphael. In the Hall of the Guards is a piece of tapestry painted on the wall, very naturally, representing the victories of Charles VII over our countrymen. . . ."

" Having seen the rooms, we went to the volary . . . There is also a fair tennis-court, and noble stables. In the Court of the Fountanis stand divers antiquities and statues, especially a Mercury. . . ."

8. Zabaleta, J. de, *El Dia de Fiesta*, Madrid, 1654.

Davillier, J. C., *Recherches sur l'orfèvrerie en Espagne* . . . Paris, 1879.

See quotation from Mesonero, p. 21 n. 15.

9. *Descriptive Catalogue* of the statues, paintings and other productions of fine arts that existed in the *Louvre at the time the Allies took possession of Paris in July 1815*. Edinburgh, 1815.

Compare further Bibliography on the Musée Napoléon on p. 106, n. 8, and Appendix, pp. 233, 234.

Section III

Magic Collections

A catalogue of an imaginary collection of objects, such as would have delighted many of our forbears throughout the centuries of ancient and mediæval times and later still, is contained in that early encyclopædia which is Pliny's *Natural History.* There is, for instance, the horn of a stag, to which was ascribed the power of dispelling serpents by its odour when burning, in accordance with the assumed traditional enmity between stags and snakes; there are the fishes' teeth, an amulet containing a piece of a frog's carcass wrapped in a piece of russet-coloured cloth, both valued for their medicinal properties, and there is too a variety of stones to which magic powers were attributed.[1] Inventories of once actually existing collections of the fifteenth and sixteenth centuries read like versions of Pliny. Jean de Berry, Duke of Burgundy, among the wealth of his manifold collections, had of course an ample provision of magic stones. The collection of the Emperor Charles V contained four Bezuar stones set in gold which were regarded as excellent charms against plague and poison,[2] and there were other stones valued as a preventive against gout. In Spain's Golden Age of medicine, Dr. Nicholas Monardes held that precious stones, especially pearls, were an antidote to any kind of poison, and also helped as medicine in cases of heart disease, fever, plague and last, but not least, in treatments for rejuvenation. De Boodt, court physician to the emperor Rudolph II of Austria, in his "Gemarum et lapidum historia", 1609, put forward a suggestion for a new crown for his master; he believed in the supreme beauty of jewels which in his view were an expression of the divine powers enshrined within them.

Other less illustrious persons of the past, of whose passions and collections no record has been preserved, may have been equally anxious to possess objects that would endow them with extraordinary powers. Alexander Neckam (1157-1217) in his book *De Naturis Rerum* is likely to have voiced thoughts current among mediæval men when he wrote of the Egyptian fig which makes the wrinkles of old age vanish and tames the fiercest bulls, and of the stone which, placed on the head of the sleeping

wife, provoked confidences of marital infidelity, or carried in one's mouth, gave victory in war.[3]

Specimens commanding thousands, and tens of thousands of ducats, in the period roughly between the fifteenth and the seventeenth century, were the " unicorn horn "[4] and the mummy,[5] both prized for their supposed powers over disease, and furthermore, over evil forces of any character. The Spanish Grand Inquisitor Torquemada was one of the many distinguished personages of his era, who carried about a piece of unicorn horn as a talisman against poison and murder. Among the vessels of gold and silver in the royal treasure chamber in the palace at Madrid were a few horns of the same prodigious beast which were valued at over 1,000,000 ducats. Unicorn horn was among the treasures mentioned first in settlements of succession. The sword with a hilt of unicorn horn treasured by the Hapsburgs was placed in pawn by Maximilian I in 1491 ; two centuries later descendants of the money-lenders offered the sword for sale and among the potential buyers were the Signoria of Venice and an Indian Rajah, but eventually the abbot of the monastery of Fulda signed the deal in return for a mere 6,000 thalers, though originally a sum of 20,000 had been demanded. The abbot's purpose in purchasing the sword was to return it to the imperial family. Another similar sword in the possession of the Hapsburgs was regarded with even greater respect, for it was believed to be part of the horn of the legendary "moniceros" which according to Physiologus was a symbol of Christ and endowed with supernatural powers.

When the German town Leipzig, in 1693, succeeded in acquiring an Egyptian mummy, the event was deemed sufficiently important to be commented upon in lexicons and travel books. At the time, it was believed of the mummy that it had such qualities, " that it pierceth all parts, restores wasted limbs, consumption, heckticks, and cures all ulcers and corruptions."[6]

Quite obviously at early stages of civilization when they have not yet progressed far in the control of their environment, when chance and accident are given considerable scope, men are prone to seek comfort in blind faith in the powers of supernatural agents or to accept unquestioningly casual connections between matters not understood. So viewed, any object remarkable for the oddness of its appearance, for its rarity or for its age, may come to be regarded as a potential source of mysterious forces. It was the association between all things pagan and the forces

of evil which for centuries made men avoid contact with relics of the classic world. The mediæval farmer who by chance dug up a fragment of a Roman statue, would hurry to rid himself of the token of accursed paganism and deliver it to the priest, who might, as he occasionally did, render it harmless by having it bricked into the masonry of the church wall. In the fourteenth century the ancient pagan relic was still occasionally accused of harbouring evil powers. When Siena suffered a setback in a feud with Florence some citizens accused Lysippus' statue of Venus, which not long before had been set up with general acclamation in a public square, of casting an evil spell, and the statue—the *cosa disonesta*—was broken up in pieces and buried in the soil of Florence.[7] In the late fifteenth century the dread of paganism discouraged Pope Innocent VIII from interesting himself in the classic collections of the Vatican which had been assembled by some of his predecessors.[8]

Collections illustrating in a special manner man's striving to engage supernatural powers as his helpers were, and still are, kept in sanctuaries. In Greek temples, votive donations, *anathemata*, embodied a variety of human thoughts and feelings, fear, hope, gratitude, appeal and vow.[9-11]

The occasions for the offerings were as numerous as the situations in which the men of those days felt acutely conscious of their inadequacy in dealing with the problems confronting them : when elemental forces, disease, floods, or drought menaced their existence or that of their animals or crops ; when entering on a new task in peace or war, or after its performance. Any object could serve as a votive offering, whether of precious or unassuming material, of lesser or greater artistic quality. Sometimes an object remarkable for its rarity or for its historical associations was found worthy of sacrifice to the gods. In some cases the donation was symbolic of its special message, and took the form of a statue representing the god to whom the donor addressed himself or of a figure referring to the event with which the act of donation was connected.

The temple of Apollo at Delphi contained a collection of statues. It was an assembly of victorious generals, of infantry, and horsemen distinguished in battle, of captive enemy women, and of slain enemy bodies. Shields and figure-heads of ships captured in war formed part of the collection and there were also figures of oxen in memory of the freedom to till the ground which had been won by the victory of Greek tribes over Bar-

Collin de Plancy recorded that nineteen churches claimed to possess the jaw-bone of John the Baptist, and that the Benedictine monastery at Vendôme in France prided itself on owning a tear wept by Jesus on the death of Lazarus, and preserved in a phial in their church. The Cathedral of Chartres, the church of the royal residence Escorial near Madrid and the church of St. Cecily in Rome claimed the privilege of possessing among their treasures a hair of Jesus. True to the dictum of the Council of Trent, 1545-63, the relics of Saints and Martyrs were worshipped by the believers. Gregor of Nyssa wrote that it was a great privilege to touch the relic of a Saint. He described how people " reverently embraced and kissed the holy remains ", how they " avidly viewed them ", how " they pressed them against their eyes and ears . . . and communicated with them through their senses . . . and begged them to be their spokesmen and patrons before God ".[13]

The great impecunious masses of the Middle Ages had to be satisfied with a fragmentary piece of skeleton in their local church or with the occasional experience offered by a peddler who brought a relic to the village and allowed the people to view and touch it in return for a small contribution. Even the prosperous were limited in their opportunity to maintain a large collection, whatever the specimens. The lack of facilities for the transport of goods compelled wealthy people to divide their year among several residences, if they wished to utilize provisions available in different localities,[14] and this migratory style of life naturally discouraged the accumulation of collections. An object coveted above all by these luxurious nomads was the Reliquary : it was " the most precious ornament in the Lady's chamber, in the Knight's armour, in the King's hall of state ".[15] They would display relics on the ramparts of besieged fortresses and the traveller would hold them aloft when the skies threatened him with thunderstorm.

Unsurpassed by any other collection of relics was that amassed by Philip II (1556-98). The Defender of the Faith, though engaged in ruling two hemispheres, did not deem it too small a task to despatch a special envoy, Ambrosio de Morales, to various parts of the Peninsula to collect relics of saints and martyrs.[16] Graves closed for centuries and jealously guarded under threat of excommunication opened up to the royal messenger to give up a few bones, some " still of sweet smell ". Another mission was sent by Philip to the Low Countries and

to Germany, to rescue holy remains from damage and neglect at the hands of the Protestants. By such efforts Philip succeeded in assembling at his residence Escorial near Madrid a collection containing eleven complete skeletons, thousands of skulls, leg, arm and finger bones, apart from a number of miscellaneous pieces. On occasions of royal illness, up to the death of Charles II, in 1700, processions with holy images and the application of relics to the patient's body were part of the treatment.

In spite of numerous attempts by reformers, including Calvin in his treatise against the veneration of relics, the worship of skeletons went on in Europe. In the nineteenth century, churches in Italy and in Spain still listed relics for legitimate worship, and to this day men and women seeking liberation from disease or infertility, or some other calamity, go on pilgrimage and offer Ex-Votos to relics.

Another manifestation expressing the human desire for contact with superhuman powers is the religious image. It serves as a propitiation to the gods, and to men acts as an aid in spiritual uplift. It would appear as if between the belief in magic charms of a general character on the one hand and the veneration of relics and worship before images on the other, there existed differences indicating distinct aspects of the human mind and, perhaps, according to existing standards in our society, different grades in civilization.[17] To those who allow fear to occupy a predominant place in their minds, and whose anxiety is not concerned with definite matters but is diffuse, almost anything may serve as a magic charm. The worshipper of relics is still swayed by superstition, but the objects arousing his emotions are connected with some definite plan and philosophy. In addition, his associations are with benevolent rather than with evil powers, and such a positive attitude seems to increase people's abilities in coping with the problems of life. If compared with those who in their reactions depend on a physical contact with actual skeletons, worshippers of images seem to have gained in sensitivity and in imagination.

To the Roman Catholic believer the image representing a holy figure or illustrating a story of the Bible is an extraordinary stimulus. It conjures up an ideal world different from his earthly environment, and heightens his emotional faculties, his capacities for hope, patience, humility and kindness. Whether such exaltation may be regarded as a gain in personality or as an escape from reality is of no concern here, and may from

either point of view depend on the degree of the climax. The point of immediate interest is that, whether for the good or evil of those concerned, the presence of sacred images has a considerable effect on the minds of certain people, and a collection more effect than a single image.

In all Catholic countries armies of artists were at work for centuries featuring supernatural powers in paint, stone, wood and metal. In Spain, more than anywhere else, images wielded power over men, and there were people on the Peninsula who staunchly believed that they had seen a figure in stone or wood give an order by moving head or hand. When in the sixteenth century the sculptor Becerra was at work on a new figure of the Virgin in the Convent de las Descalzas at Madrid, he had to attempt no less than three times the head of the figure. The two first heads were not satisfactory, but the third was, owing to the aid of the Madonna herself. In his dream the artist heard her voice ordering him to take from his fireplace one of the logs of oak and carve her countenance. In Spain's grandiose effort to improve the lot of humanity by affirming the power of the Catholic Church, sacred images were much-needed aids in " conditioning " people, in maintaining them in the state of religious exhaltation required for the conduct of century-long wars against infidels and for making persecution and despotism legitimate within the community. Philip II, the principal exponent of that Spain, crowded his residence, El Escorial, with religious paintings and sculptures.[18] Some were fine works of art, but the majority was mere craftsmanship. To their owner all were equally precious. His influence reached across the ocean to the newly established Spanish Colonies in America. The ships which went out to fetch gold and silver and other precious articles carried as part of their outward cargo images of saints and pictures of scenes from the Bible. To produce the numbers of pictures required for export, bands of artists of mediocre talent were engaged on copying, both in Spain and Italy, highly reputed paintings—charms utilized in the name of God, even if in fact to the benefit of Spanish Imperial politics.[19]

REFERENCES AND NOTES

1. Thorndike, L., *The Place of Magic in the Intellectual History of Europe*, New York, 1905.

2. Morales, C. de, in his *Libro des las virtudes y propriedades de piedras preciosas*, Madrid, 1605, declared that the Bezuar stone was found in the kidneys of the

cervicabra, a wild animal of Arabia which, after having been bitten by a serpent, produced a counter-acting matter.

A Dutch sixteenth-century medical doctor, de Boodt, explained the word " Bezoar " as having evolved from the Hebrew " Beluzaar " and meaning " the master of poison ". Compare Weixlgaertner, op. cit., vol. II (p. 21, n. 14).

3. Quoted by Thorndike, op. cit. (p. 35, n. 1), p. 16.

4. Mueller, J. W., *Das Einhorn vom geschichtlichen und naturgeschichtlichen Standpunkt*, Stuttgart, 1853.

Weixlgaertner, op. cit., vol. II (p. 21, n. 14).

" (Unicorns) . . . of which I have seen many, both in Publick Repositories and in private hands . . ."

Browne, E., *A brief account of some Travels in divers parts of Europe*, London, 1687, p. 101.

5. Pettigrew, T. T., *A History of Egyptian Mummies*, London, 1834.

6. Zedler, J. H., *Grosses vollstaendiges Universal Lexicon aller Wissenschaften und Kuenste welche bisher durch menschlichen Witz und Verstand erfunden und verbessert wurden*. Halle-Leipzig, 1735–54.

7. Vasari, I . . . XIII, XIV. *Commentari del Ghiberti*, quoted by Burckhardt, J., " Die Sammler ", p. 327, *Beitraege zur Kunstgeschichte*, Gesamtausgabe, vol. 12, Berlin, 1930.

Schlosser, J., op. cit. (p. 21, n. 14) (1908).

8. Muentz, E., *Les Arts à la Cour des Papes*, Paris, 1898, p. 19.

9. Pausanias, *Description of Greece*, ed. by Frazer, J. G., London, 1898.

10. Rouse, W., *Greek Votive Offerings*, Cambridge, 1902.

11 Burckhardt, J., *Antike Kunst*, pp. 89–103.

Gesamtausgabe, vol. 13, Berlin, 1933.

12. Calvin, J., *Traité de Reliques*, Genèva, 1601.

13. Collin de Plancy, *Dictionnaire Critique de Reliques et Images Miraculeuses*, Paris, 1821.

Collin de Plancy, *Abregé de l'inventaire du Trésor de St. Denis*, Paris, 1668.

Compare two seventeenth-century accounts of collections of relics, in the Treasury of the cathedral of St. Denis in France by Evelyn in his *Diary* on the 12th November, 1643, and in San Marco at Venice by Sansovino, op. cit. (p. 22, n. 15), pp. 107–8.

Compare, further, Appendix, pp. 226, 227, extracts from seventeenth-century accounts of the imperial collection in Vienna and on castle Ambras, Tirol.

14. Nussbaum, op. cit. (p. 21, n. 4), p. 25.

15. Lacroix, P., *Science et Lettres au Moyen Age*, Paris, 1877 (English translation, London, 1877, p. 363).

16. Florez, M., ed., *Viaje de Ambrosio de Morales por orden del Rey Don Phelipe II a los Reynos de Leon y Galicia y Principado de Asturias, para reconocer las Reliquias de Santos*, 1765.

17. Haddon, A. C., *Magic and Fetishism*, London, 1910, pp. 76, 80.

Murphy, J., *Lamps of Anthropology*, Manchester, 1943, p. 3.

18. Martinez, op. cit. (p. 22, n. 17).

Justi, op. cit. (p. 22, n. 16).

19. Floerke, H., *Studien zur Niederlaendischen Kunst und Kulturgeschichte*, Leipzig, 1908, p. 203.

Section IV

Collections as an Expression of Group Loyalty

To contend with his environment man has invented a variety of tools and has, even if as yet rather imperfectly, devised methods of uniting individuals into groups whose capacities for dealing with problems are increased beyond the sheer sum of the members' individual powers. A source of further potentiality is the individual's consciousness of his partnership in the group. In addition to such communal activities as, maybe, an agricultural co-operative group, a business enterprise or an army unit, ties of less tangible character may be established. Of the groups which an individual may choose to regard as his primary background it is proposed to deal here with four which seem of considerable importance in European society. Each can be illustrated by collections. These four groups are :

(1) Kinship with a Golden-Age Ancestry.
(2) Patriotism.
(3) Union through Culture,
  (*a*) Scions of the ancient Mediterranean World.
  (*b*) Europeans.

(1) *Kinship with a Golden-Age Ancestry.* The creation of the first man is one of the great questions obsessing people's minds. According to one interpretation celestial beings begot a race of heroes who, in their turn, procreated the first humans.[1] The tendency to this solution of the problem can be illustrated by certain specimens in collections of different periods.

Greek temples contained objects connected with a past when humans still enjoyed the immediate co-operation of the gods.[2] The sceptre kept at Chæronea was believed to have been made by Hephaistos and used by Agamemnon. In the Pallas temple at Metapontum, smiths' tools were venerated as the implements with which the Trojan horse had been constructed. Paintings represented the giant race that once had dwelt in the land. Then too, there were skeletons of colossal proportions believed to be the remains of giant-ancestors, relics of a Golden-Age ancestry, of a legendary human race that once had held sway.

3. Plinius, op. cit. (p. 7, n. 10), Lib. VII, 16.
4. Suetonius *Opera,* vol. I, " De Vita Caesarum ", Liber II, " Divus Augustus ", 72, 3. Ed. by Ihm., M., Lipsiæ, 1923.
5. Quoted by Murray, D., *Museums, their History and their Use* ", Glasgow, 1905, p. 3.
6. Collin de Plancy, op. cit. (p. 36, n. 13), (1668), p. 3.

(2) *Patriotism.* " The great sanctuaries of Olympia and Delphi served in a manner as the national museums and record offices of Greece. In them the various Greek cities . . . set up . . . the trophies of their victories and deposited copies of treaties. . . . They offered a neutral ground . . . where they could survey, with hearts that swelled with various emotions, the records of their country's triumphs and defeats."[1]

The men and women who went about their business in the streets of ancient Greece, in Athens, Delphi, Corinth, and in some of the other townships, were given an opportunity of keeping in touch with a community much larger and at the same time much more august than the people who were their contemporaries in flesh and blood : the past of their community was kept alive for them by statues, paintings and other historical tokens. There were the statues of citizens distinguished in war or peace and wall paintings representing events of Greek history. " In Delphi the road which wound up the steep slope to the temple of Apollo was lined on both sides with an unbroken succession of monuments which illustrated some of the brightest triumphs and darkest tragedies in Greek history."[2] In the famous Painted Colonnade near the market-place of Athens were shown scenes of the battles of Marathon and Mantinea, and the conquest of Ilium ; there one could see and touch bronze shields taken from the Sicyonians. Other open-air collections of statues and pictures were comparable to those of Delphi and Athens.

Whereas those Greek collections reflected a desire to foster a consciousness of relationship among the members of a city state, if not of the wider unit of Greece as a whole, a certain type of Roman collections seems to have represented a tendency towards individualism.[3] It was a custom in Rome that the funeral ceremony of a distinguished Roman should include a procession of men wearing ancestors' masks. The distinction of the mourning family would depend on the number of images in the mobile gallery. The idea of the dynasty deeply rooted in a distant past acted as a stimulus to thoughts and emotions,

and the tangible, multiple impression presented by those images may have carried a stronger power of conviction than laudatory comment in spoken or written words. Another kind of collection mirroring the Roman consciousness of the family group was sometimes assembled in the Atrium of the private house. The arcaded courtyard of southern architecture, scene of the daily life of the family, offered a suitable background for ancestors' images in the form of statues and reliefs. The latter often had the shape of shields (*clypei*) and were hung on the walls, and the association with militancy emphasized the heroic qualities of the ancestry.

The series of images of sovereigns created and put on show at different periods and places were dynastic in their immediate content and yet charged with an intense nationalistic message. The iconographic series expressed the mediæval idea of the god-willed sequence of rulers and upheld the legitimate authority vested in each individual link of the dynastic chain.[4]

Up to the beginning of the nineteenth century the ancestral gallery of ruling or otherwise distinguished families was a recurrent phenomenon in Europe and is too familiar to require description. Both the ancestral and the nationalistic collection can be encountered in almost any society, in and out of Europe.[5] Both represent a physical link between the living and the dead of a group, be it a relationship by blood or soil. Both tend to represent a particular group in a manner suggesting its superiority to others. The nationalistic collection may imply contempt and hatred of other nations, and the ancestors' gallery may insinuate the inferiority of people not related to the family in question.

Patriotism in its meaning of the association of an existing community with the experiences of people who in the past inhabited the same area, was an important drive behind the accumulation of classic remains in Renaissance Italy.[6] (Pls. IIa, IIb, III). Dante expressed it by writing that the very walls of Rome deserved reverence. The ancient remains made the " Gloria " of the past near and tangible to generations of Italians striving for a re-organization of their national existence. Since the breakdown of the Roman Empire Italy had not found her balance. Though the Vatican represented a centre of gravity of a world-wide Catholic Empire, Italy herself was a non-co-ordinated bundle of independent small sovereignties. The Pope's migration to Avignon in 1309, and the implicit loss of influence of the Church, was an

event likely to foster Italian patriotism and to encourage the creation of collections of patriotic substance even if later the return of the popes to Rome and the revival of papal power, in their turn, engendered enthusiasm for the legacy of antiquity. To indulge in his antiquarian interests Pius II had himself borne in a litter through Italy. Later popes chose the carnival as an occasion for magnificent processions representing the " Triumphs of Roman Imperators ", which were another sort of mobile galleries.

During the Middle Ages Rome had been allowed to fall into ruins. In the early fifteenth century Poggio Bracciolini in his book *Vicissitudes of Fortune* complained that of the once famous wealth in statuary in Rome there remained only six statues, five of marble and one of bronze, and Blondo Forli, at the same period, suggested in his *Roma Instaurata* that the relics of Saints should be regarded as a consolation for the ruin of the ancient city.[7] When Brunelleschi and Donatello visited Rome and measured the ruins of ancient architecture, they found the roads leading to the town littered with broken statues. Individual efforts at collecting ancient remains, however, went back to the eleventh century, when Nicholas Crescentius built in Rome his house containing remains of ancient buildings. The oldest actual collection of which a record has been preserved, existed about 1335 at Treviso where a wealthy citizen, Oliviero Forza, collected ancient medals, coins, marbles and manuscripts. Of this only a list survived in which the collector named things he wished to purchase and where he referred to contemporary collections in Venice similar to his own. Another early Renaissance collector known by name was the already-quoted author Poggio, who took special interest in inscriptions and decorated his house at Terranuova near Florence with *confractis marmorum reliquiis.* In the early sixteenth century palaces of wealthy merchants, princes and clerics in Rome, Tuscany and Venice, were filled with relics of the Roman past, with medals, coins, statues and inscriptions. At Florence the Medici declared the importance of a collection to be equal to that of a library.

The Florentine collector Niccolo Niccoli was probably one among others who used ancient objects in his everyday life, and the contemporary author Vespasiano Fiorentino wrote of him : " At table he ate from beautiful ancient vessels. It was lovely indeed to watch him in that ancient style of manner which he adopted."[8] Artists—Ghiberti, Squarcione, Mantegna, Lombardi

and others—assembled ancient statues in their studios, inspired by the idea of being descendants of the creators of the works in their collections and inspiring others to interest themselves in relics of antiquity.[9] Raphael, when commissioned by Pope Leo X to undertake the reconstruction of ancient Rome, wrote in a letter that one must rescue the divine soul of antiquity, a source of inspiration for all those who are capable of high things.

The appeal of tokens of the past could attain such power that a newly dug-out ancient statue was carried about in the streets amidst the jubilation of the people. When, in January, 1506, a statue—known as "Laokoon"—was unearthed near San Pietro in Vincoli, on a plot belonging to one de Freddi, the people of Rome came out streaming to see "the greatest masterpiece ever seen", while it was still standing in a hole in the ground. (Comp. Pl. XVIb).

In 1534 the Pope banned the export of works of art from Italy.[10] The ban, which in practice had only limited effect, emphasized the fact that the *Rinascimento* was not only the expression of a local Italian loyalty, but that it was a European event: one of the few great Western experiences of unity and continuity.

REFERENCES AND NOTES

1. Pausanias, op. cit. (p. 36, n. 9), Introduction, p. xxxviii.

"Imagine yourselves at the Painted Colonnade; for the monuments of all your glories are in the market-place." Æschines, quoted by Pausanias, Book I, 15, 1.

2. Pausanias, op. cit., Book I, 1–3; Introduction, p. xxxix.

3. Bonnaffé, op. cit. (p. 7, n. 10).

4. Tormo y Monzo, E., *Las Serias Iconographicas de los Reyes de España*, Madrid, 1899.

5. Comparing the veneration of heirlooms in a primitive South Sea community and in Europe, B. Malinowski wrote, op. cit. (p. 27, n. 1), pp. 88, 89:

"When, after six years' absence in the South Seas and Australia, I returned to Europe and did my first bit of sight-seeing at Edinburgh Castle, I was shown the Crown Jewels. The keeper told many stories of how they were worn by this and that king or queen on such and such occasion. . . . I had the feeling that something similar has been told to me. . . . And then arose before me the vision of a native village on coral soil . . . and naked men, and one of them showing me thin red strings, and big, worn-out objects, clumsy to sight and greasy to touch. With reverence he also would name them, and tell their story. . . . Both heirlooms and *vaygu'a* are cherished because of the historical sentiment which surrounds them. However ugly, useless, and—according to current standards—valueless an object may be, if it has figured in historical scenes and passed through the hands of historic persons, and is therefore an unfailing vehicle of important sentimental associations, it cannot but be precious to us."

6. Aldrovandi, U., *Le Statue antiche que per tutta Roma se veggono*, Venetiis, 1556.

Burckhardt, J., *The Civilization of the Renaissance in Italy*, London, 1914.

Muentz, E., *Les Arts à la cour des Papes*, Paris, 1878–82.

Michaelis, A., " Geschichte des Statuenhofes im Vatikanischen Belvedere " (*Jahrbuch des Deutschen Archaeologischen Institutes*, Berlin, 1890, vol. V).

Huelsen, C., " *Roemische Antikengaerten des XVI Jahrhunderts* " (Abhandlungen der Heidelberger Akademie der Wissenschaften), Heidelberg, 1917.

7. " . . . marmoreas (statuas) quinque tantum, quatuor in Constantini Thermis ; duas stantes pone equos, Phidiae et Praxitelis opus ; duas recumbantes ; quintam in foro Martis ; . . . atque unam solam aeneam equestrem deauratam ". Poggio Bracciolini, *Historiae De Varietate Fortunae* (accomplished about 1450), Lutetiae Parisiorum, 1723, pp. 20–1.

Blondo, F., *De Roma Instaurata*, Venetiis, 1510, pp. 1, 33, 34.

8. " Quando era a tavola, mangiava in vasi antichi bellisimi. . . . A vederlo in tavola, cosí anticho come era, era una gentilezza." Bisticci, V. (Fiorentino), *Vite di Uomini illustri del secolo XV*, Florence, 1859, p. 480.

9. " Ed egli (Donatello) fu potissima cagione, che a Cosimo de Medici si destasse la volontà dello introdurre a Fiorenza le antichità que sono & erano in casa Medici." Vasari, *Vite*, Donato Scultore, Firenze, 1550, p. 347.

Among the Renaissance artists who with great devotion studied the artistic remains of ancient Italy was Benvenuto Cellini, who wrote in his *Autobiography* : " While we stayed at Pisa, I went to see the Campo Santo and there I found many beautiful fragments of Antiquity, that is to say, mainly sarcophagi. In other parts of Pisa also I saw many antique objects, which I diligently studied." Referring to a silver box modelled upon an ancient sarcophagus, which he made for a cardinal, he wrote : " This was the first earning that I touched at Rome and part of it I sent to my good father ; the rest I kept for my own use, living upon it while I went about studying the antiquities of Rome." *The Life of Benvenuto Cellini*, transl. by J. A. Symonds, London, 1888, vol. I, pp. 29, 38–9.

10. " . . . quod multo damnabilius est etiam statuas, signa, tabulas marmoreas, atque aeneas, porphyreticos, et numidicos, aliorumque generum lapides extra Urbem in alienas Terras ac Civitates asportari." Marini, G., *Degli Archiatri Pontifici*, Appendice de' Documenti, No. xcvi, pp. 280–4, Rome, 1783.

(3) *Scions of the Mediterranean World.* Efforts towards a homogeneous Occidental culture, as distinct from an Oriental one, would seem to have long preceded the Italian Renaissance. The Hellenistic rulers of Pergamos and Alexandria were anxious to collect Greek manuscripts, inscriptions, statues, casts and gems.[1] In Imperial Rome the ancient cultures both of Rome and Greece were venerated as a priceless legacy, and a heightened sensitivity to the Mediterranean past seemed to inspire the men of the Empire in their efforts after a New Order and a Novum Sæculum.[2] The Romans desired to appropriate not merely the material possessions of vanquished Greece but also to absorb the Greek spirit. Young Romans were taught the thoughts of

Greek philosophers, Roman architecture was clothed with Greek ornament, and almost any object originating from Greece, even if without special beauty or interest, would be treasured as *Res Fatalis* and so create an illusion of success and well-being.[3]

Few Romans could afford the possession of a collection of Greek tokens, but many could undertake a journey to Greece. Pausanias, who wrote his *Description of Greece* in the second century A.D., was preceded by numerous *Cicerones* or *Periegetes* who had described and interpreted to their Roman contemporaries the ancient Greek remains.[4] There had been Polemo of Illium, in the first century B.C., Heliodorus of Athens, who is supposed to have been one of Pliny's sources in matters of art, and other authors, in addition to the much more numerous guides who did not commit their information to writing but served tourists by word of mouth. It was to these that Cicero referred when he wrote : "qui hospites ad ea quae visenda sunt solent ducere et unum quidque ostendere, quos illi mystagogos vocant." [5] Plutarch was amused by the routine manner in which the guides entertained their public, who apparently wished to listen to stories, true or invented, of heroes whom they claimed as their ancestors. In a letter to Cicero Atticus wrote : "Athens attracts me, not so much for her Greek buildings and monuments of ancient art, as for her great men, where they dwelled and sat, talked and lie buried." [6]

After a period of disintegration of European culture as a whole, which followed the break-up of the Roman Empire, and in the course of events in which the Teutonic tribes migrated to the West, were christianized and assimilated to the Latin and previously latinized groups, another effort towards a homogeneous Occidental culture was made by Charlemagne who adopted the Imperial title and sent monks to Italy to purchase early Christian works of art in which classic and Christian traditions blended.

The imaginary integration of Roman and Greek traditions which had begun in Imperial Rome was revived on Italian soil in the Renaissance period. The Florentine Humanist Poggio Bracciolini corresponded with Greeks in Byzantium and advocated the restoration of Greek statuary ; the foundation of the Platonic Academy in the Pitti Palace in Florence expressed Cosimo Medici's vision of an Italy regenerated through the spirit of ancient Greek culture rather than by consciousness of chthonic relationship with ancient Rome. The Humanist Ciriaco of Ancona to whom it fell to act in Rome as *cicerone* to the Emperor

Sigismund, travelled to Greece and to parts of Asia and Africa as far as the ancient Mediterranean genius had penetrated. On the other hand, all Western countries laid claim to the spiritual heritage of the Græco-Roman world. The sixteenth-century contest among France, Spain and Germany for influence and domination in Italy became an opportunity for intensified cultural contacts.

Long after the disintegration of the Roman Empire the idea of the " Imperator " as a symbol of peace and order seems to have lived on in the imagination of the West. The title survived and added prestige first to the German kings and later to the Hapsburg dynasty. Medals and coins, bearing portraits of Roman emperors attracted much interest. When the Italian poet Petrarca met the Emperor Charles IV in Mantua in 1354, he presented this sovereign of German extraction with a collection of Roman coins and urged the ruler to follow the example of his ancient predecessors.[7] A book on coins, believed to be among the earliest existing publications on the subject, appeared in 1579. It was by Adolph Occo and dealt with coins of Roman emperors exclusively. In 1563 there was published in the Netherlands Hubert Goltz's *Gaius Julius Cæsar sive Historiae Imperatorum ex antiquis numismatibus restitutae.* At that period hundreds of collections of Roman coins existed in Western Europe.[8]

Next to coins bearing portraits of Roman emperors, their busts and paintings commemorating their deeds were much sought after by collectors. " As the comfort and security of life increased . . . walls had to be covered with something more inviting than the lives of the Saints. . . . The story of Cæsar was a favourite decoration."[9] Philip II of Spain was presented with a series of busts of Roman emperors, and in England Cardinal Wolsey had portraits of emperors in the form of terra-cotta medallions affixed to the gateway turrets of Hampton Court. Cardinal Mazarin called one room of his collection (in the later Palais Royal) " Serie de Cæsari " and Napoleon Bonaparte had a " Hall of Emperors " in his museum in the Louvre (Fig. 3).

Yet even without such direct associations collectors from the Renaissance onward would aim at creating an atmosphere of ancient Mediterranean culture. At his palace at Fontainebleau, Francis I of France assembled not only works of contemporary Italian masters, of Cellini and Leonardo da Vinci, of which French troops occupying Milan were the conveyors, but ancient works of art as well. He engaged artists for their purchase ;

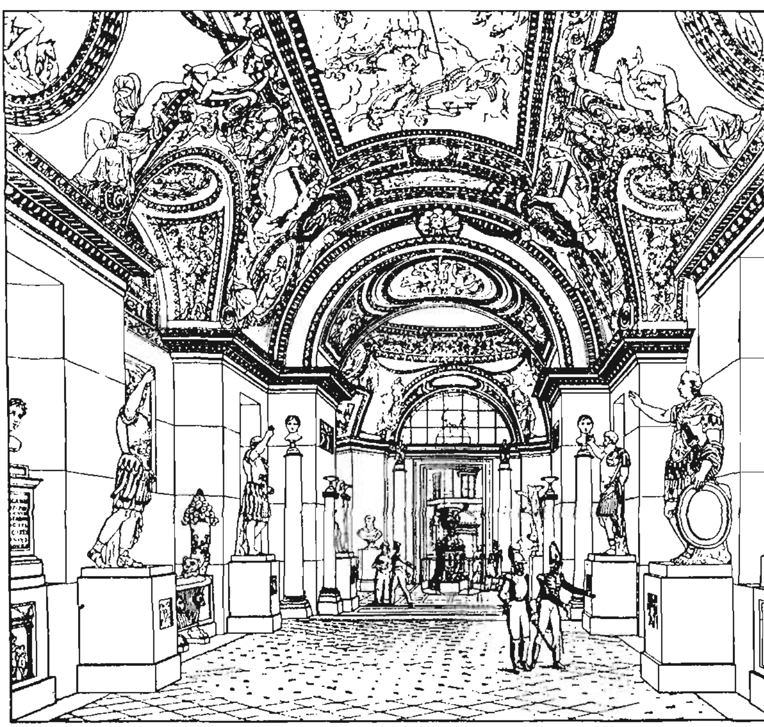


FIG. 3.—*Louvre,* Paris. *Hall of Roman Emperors.* Engraving by Hibon, after a painting by Cibeton.

(By courtesy of the Louvre Museum.)

Andrea del Sarto spent the funds entrusted to him for his own purposes, but Primaticcio returned with 124 ancient statues and numerous casts. In 1648 Velazquez was sent by his king, Philip IV, to Rome with an extraordinary embassy to Pope Innocent X for the purpose of purchasing original paintings and antique statues, and of having casts made from some of the best. He brought back to Spain thirty-two casts of full-length Roman statues and busts.[10]

Not only individuals, however, but groups of people were seized by the desire for a spiritual return to the classic era. The French town Lyons may be quoted as an example of a community developing a strong consciousness of her relationship with the ancient past, and collecting remains of the Roman period.[11]

In England the beginning of classic collections is associated with the name of Thomas Howard, Earl of Arundel, with whom the slogan "Transplant Old Greece to England" was connected [12] (Pl. IV). He was the first to bring inscribed Greek marbles to this country. In the year 1613 the Earl of Arundel, in company with Inigo Jones, visited Italy and made Siena his headquarters for the winter. A special permit of King James enabled the earl to visit Rome, a place generally forbidden to citizens of the islands of the Reformed Church, and to make excavations which resulted in the unearthing of many Roman statues. Of the Arundel collection near the Strand in London, the German artist Joachim von Sandrart, who visited England in 1627, gave the following account: "Foremost among the objects worthy to be seen, stood the beautiful garden of that most famous lover of art, the Earl of Arundel, resplendent with the finest ancient statues of marble, of Greek and Roman workmanship. . . . Some full-lengths, some busts only, with an almost innumerable quantity of heads and reliefs all in marble and very rare." [13] Other collections of kindred character in London in the late seventeenth century belonged to C. Townley (Pl. V) and to J. Kemp. In his *Diary*, R. Thoresby gave the following description of Kemp's collection: "I . . . visited Mr. Kempe who showed me his noble collection of Greek and Roman medals . . . he had two entire mummies . . . what I was most surprised with was his closet of the ancient deities, lares, lamps and other Roman vases . . ." (26th Jan., 1709).

In the century following Arundel, the ancient Mediterranean world came to be the cultural background and spiritual homeland

of numerous Englishmen.[14] The young gentlemen who made their " Grand Tour " on the Continent—an important feature of their education—interested themselves in the Mediterranean legacy. In 1734 the Society of the Dilettanti was founded in London, an association of men who had travelled in Italy and who regarded classic culture as the proper background for their prosperity. England was enjoying an era of political consolidation and of commercial progress, and ancient Mediterranean culture became associated with social status in the modern world. At the first meetings of the Society of the Dilettanti the president appeared in a scarlet Roman toga and the box in which the books of the society were kept was called " Bacchus' tomb ". In spite of this lighthearted approach, the activities of the Dilettanti deserve commendation for the part they played in initiating and supporting undertakings by which the remains in Greece and the Levant were explored for the benefit of the world. Whereas excavations in Italy had been carried on since the Renaissance, the soil of Greece and of the Near East under Turkish rule had remained closed to antiquarians, even if casual spoils penetrated to the West through Venice.

In the eighteenth century loyalty to classic Mediterranean culture was a common feature of men of different nationalities, and the shared experience in many cases led to the establishment of actual international contacts, and indeed to a spiritual Europeanism. In Rome and Venice students of classicism would meet, Germans, Frenchmen, Englishmen and Danes, artists, writers and diplomats (Fig. 4). Among them was the Yorkshire architect Thomas Harrison on whose advice the Earl of Elgin embarked on collecting antiquities which were to include the famous Elgin marbles. In his *Italian Journey* Goethe expressed his wish to be conducted through Italy by an Englishman with knowledge and understanding of art.

Generations of Europeans were imbued with the teaching that ancient art marked the highest standard attainable. Winckelmann wrote : " The only way for us to become great, nay inimitable, if that be possible, is to imitate Antiquity." Diderot declared that to perceive nature it was necessary to study ancient art. Similarly, Reynolds preached to his students that they should study the works of the ancients in order to attain to the real simplicity of nature. In addition to its positive effects, this dogma had the consequence that poor-quality imitations of ancient architecture and art became accepted by the rising

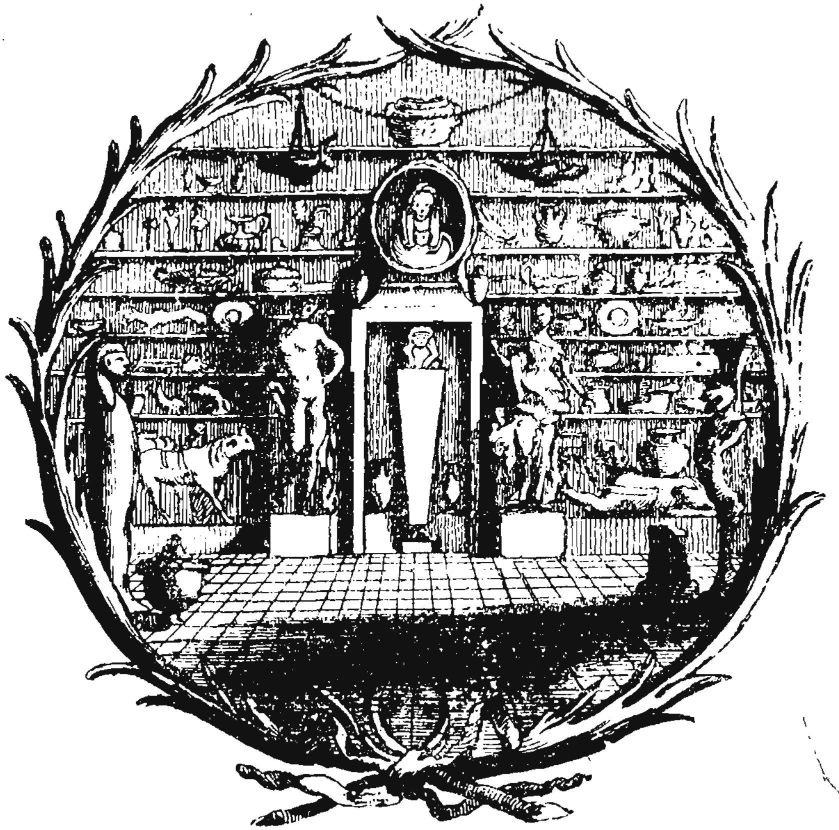


FIG. 4.—A famous collection of specimens of classic archæology, partly excavated by the owner in Asia Minor, belonged to Count Caylus, the French eighteenth-century scholar and traveller. The picture illustrating the general arrangement in the collection is the frontispiece of Caylus' *Recueil des Antiquités* . . . , Paris, 1752, vol. I.

European middle-class of the nineteenth and twentieth centuries, who found contentment in collections of fake antiquities and in architecture in classic forms more often misinterpreted than not. Thus, Greek and Roman styles, which in the sixteenth and eighteenth centuries had inspired men with loyalty to the great achievements of the Mediterranean past and with a spiritual internationalism, very often deteriorated into a pretence of third-class artists and into a fetish of social respectability.

REFERENCES AND NOTES

1. Boettiger, C. A., op. cit. (p. 27, n. 2), pp. 6–7.

2. Toynbee, J. M. C., " An Imperial Institute of Archæology as revealed by Roman Medallions ", *The Archæological Journal*, vol. XCIX, London, 1942.

3. Burckhardt, J., *Griechische Kulturgeschichte*, vol. I, p. 41.

Friedlaender, L., op. cit. (p. 27, n. 3), vol. I, pp. 340, 376.

4. Polemon Periegeta, *Fragmenta*, collegit, digessit, notis auxit. Preller, L., Lipsiæ, 1838.

Caput III, " De Historia atque arte Periegetarum ", pp. 155 sq. ; p. 156 : " Pausanias et qui sunt eius similes, Polemo, Diodorus, Heliodorus, toti sunt in monimentis locorum describendis, signis, tabulis, delubris, inscriptionibus : haec antiquaria doctrina enarrantur, a causis historicis mythicisve repetuntur, ad memoriam et mores priorum temporum illustrandos revocantur. Nihil ultra curant, nihil omnem terrae naturam et figuram, nihil oppidorum situs . . . littorum flexus . . ."

p. 157 : " Periegetae autem nomen peculiariter pertinet ad eos, qui peregrinantibus ea, quae per singula oppida spectaculo erant, praeibant atque interpretabantur."

p. 164 : " Erat igitur haec prima et praecipua artis periegeticae pars, fabulas . . . in promtu habere. . ."

p. 162 : " Quamquam crediderim in insignioribus tantum urbibus, quae abundarent templis, donariis, ornamentis, periegetas propio loco constitutos fuisse, in minoribus sacerdotes. . ."

5. Cicero, *Verrine Orations*, IV, 59.

6. Friedlaender, op. cit. (p. 27, n. 3), vol. I, p. 380.

7. " ecce . . . Caesar, quibus successisti, ecce quos imitari studeas et mirari ; ad quorum formam atque imaginem te componas, quos, praeter te unum, nulli hominum daturus eram." Petrarca, *Epist. de reb. fam.*, Lib. XIX, ep. 3. Ed. Fracassetti, Florence, 1859.

8. According to Murray, D., op. cit. (p. 39, n. 5), vol. I, pp. 14–15, there were 200 collections of coins in the Low Countries, 175 in Germany and more then 380 in Italy.

9. Stokes, Hugh, *French Art in French Life*, London, 1932, p. 72.

10. Palomino y Velasco, *Museo Pictorico*, Madrid, 1715, vol. III, pp. 337 sq.

11. Spon, J., *Recherches des Antiquités et Curiosités de la ville de Lyon*, ancienne colonie des Romains et Capitale de la Gaule Celtique. Avec un memoire des principaux antiquaires et curieux de l'Europe, Lyon, 1675.

12. " To whose liberall charges and magnificence, this angle of the world oweth the first sight of Greeke and Romane Statues, with whose admired presence he began to honour the Gardens and Galleries of Arundel House about twentie yeeres agoe and hath ever since continued to transplant old Greece into England." Peacham, H., *The Compleat Gentleman*, London, 1634, p. 107.

13. Sandrart, J., *Teutsche Academie der Edlen Bau- Bild- und Mahlerei Kuenste ('L'Academia Todesca, etc.)*, Nuerenberg, 1679. The appendix to Part II contains a biography of Sandrart as given account of by himself to some of his pupils and published under the heading " Lebenslauf und Kunstwerke des wol Edlen und Gestrengen Herrn Joachim von Sandrart . . . von desselben Dienstergebenen Vettern und Discipeln ". The English translation of the quotation on p. 47 is taken from Hervey, M.S.F., op. cit. (p. 7, n. 11).

14. Michaelis, A., *Ancient Marbles in Great Britain*, Cambridge, 1882.

Cust, L., *The History of the Dilettanti*, London, 1898.

Cowdry, R., *A description of the Pictures, Statues, Busts, Basso-Relievos and other Curiosities at the Earl of Pembroke's House at Wilton*, London, 1751. (Considerable portions of the collections of the cardinals Mazarin and Richelieu as well as of that of the Earl of Arundel were at Wilton House.)

Walpole, H., *Aedes Walpolianae*, or a Description of the Collection of Pictures at Houghton Hall in Norfolk, the Seat of the Rt. Hon. Sir Robert Walpole, Earl of Oxford, London, 1752 (contains interesting information as to the former owners of famous objects and to the import of works of art from Italy to England).

(4) *Europeans.* The ancient Græco-Roman world was an essential part but not the whole of the imaginary collective ancestry of the Occident in the centuries following the Middle Ages. On the evidence supplied by collections some additional aspects of a spiritual European unity seem to emerge.

There is, above all, loyalty to the Roman Catholic Church. In this light any collection of images of saints assumes a function different from that discussed under the heading of magic collections. By surrounding themselves with scenes commemorating the lives and characters of saints and martyrs, people stimulated their awareness of being members of that great empire of the Res Publica Christiana, a segregation of the righteous from the wicked. Whatever a man's citizenship and tongue may have been he could join the fellowship whose power was illustrated in the paintings representing the deeds of the holy men and women who in miraculous manner and in the face of great odds and suffering knew how to master themselves and their environment.

Another feature of the European mind which expressed itself in the form of numerous collections of the sixteenth and seventeenth centuries, concerned a new approach to leisure. Inventions and discoveries, and a more settled life, had brought command over objects which had been beyond the reach of men of mediæval times. In his *Perspectiva*, Alberti had written of *letitia* as a means of enriching life by study and enjoyment. A collection offered an ideal opportunity of experiencing so

many things newly won or discovered and of spending hours of leisure in a distinguished manner. Margaret of Austria, a daughter of Emperor Maximilian, and herself Governess of the Netherlands, had in her collection at Mecheln paintings by contemporary Dutch and French artists, mainly histories of the Bible and portraits, bronzes, contemporary and ancient illuminated manuscripts, coins, and " curios " from the newly discovered Americas representing the most recent successes of Europeans. The Austrian archduke Ferdinand's museum at his Tyrolian castle Ambras near Innsbruck may be quoted as an instance of a splendid gentleman's collection.[1] There were eighteen cupboards containing the following articles: gems, vessels of semi-precious stones, musical, astronomical, optical and mathematical instruments, objects of stone, whether minerals or statues, manuscripts and engravings representing festivals and scenery, objects in ivory, in alabaster and in bronze, " curios ", such as idols, pottery, coins and arms, and miscellanea which now would be classed as ethnological. Of portraits, painted and engraved, chiefly effigies of princes and titled persons, the master of Ambras possessed more than a thousand. The function of this and other similar collections of portraits was to keep alive the awareness of celebrities as common European ancestors. The Renaissance had created a new concept of social values, and the ancestry the European liked to picture were not only saints and martyrs but men of practical deeds—soldiers, doctors, artists and students. This new " honest company " (as they were referred to in castle Ambras) were paid tribute and kept in mind by means of collections of portraits and biographies. *Viri Illustres* were the contents of Paolo Giovio's famous collection of pictures in the early sixteenth century in Como which were described in his *Musaei Jmagines.* It is of some interest that the collecting of pictures and other objects was regarded by Bartholomeo Facio in his book *De Viris Illustribus* as an activity worthy of a great man.[2] Judging by the scope of interests illustrated by the specimens contained in the cabinets of Ambras the mental horizon of the " Complete Man " of the Renaissance was remarkable in its width. He interested himself in nature and in man; the veneration of a Mediterranean ancestry was combined with awareness of contemporary events and of manners of life in distant countries; there was appreciation both of mechanical skill and artistic creation.

In spite of the Thirty Years' War the European mind went on struggling for a widening of the frontiers of knowledge.

If compared with a gentleman's collection of a few generations before, and even with such an outstanding one as that of the Duke of Berry's, the emphasis was shifting from objects valued mainly for their rare or precious material, or their supposed magic properties, to specimens illustrating nature and giving evidence of human skill. Even if collectors of the type of the owner of the castle of Ambras would themselves not go far in their active participation in the new discoveries and inventions they seemed to share in the contemporary European spirit of enhanced prosperity and self-confidence.

An early, fifteenth-century, collection of Varia was described by the contemporary writer Guillebert de Metz who in his *Description de Paris* (published 1855) gave account of the collection of a certain Jacques Duchie. A translation into English reads as follows :

> The first hall is adorned with various pictures. . . . Another hall is filled with all sorts of musical instruments . . . on all of which master Jaques can play. Another room again contains sets for playing chess . . . Then there is a studio adorned with precious stones . . . several other rooms richly equipped with beds and tables . . . hangings and rugs. . . . Indeed, he himself is a fine-looking man and properly dressed.[3]

These possessions of a citizen of Paris suggest that the period was favourable for the townsman, even if of course a multitude of possessions as owned by master Duchie was exceptional. In fact, a great collection of rare and valuable objects remained an exception for centuries to come, as may be gathered from an account by Mlle de Montpensier of the collection of Cardinal Richelieu in the seventeenth century. She wrote : " . . . ce sont des figures de marbre et toutes sortes de vases et de pièces de representation les plus curieuses et le plus enrichies de l'Europe. . ." [4]

The scope of interest of seventeenth-century collectors of " varia " may be further illustrated by Spanish *aficionados* whose activities were described by contemporary authors.[5] At their regular meetings, which were held in private houses, they exhibited the latest purchases and objects they wished to exchange. On the occasion of one such " virtuoso divertimiento " attended by distinguished gentlemen, artists and scholars who " showed refined taste and thorough knowledge ", the following kinds of specimens were handled and discussed : paintings by great masters, armour, weapons, sculpture, furniture, ivory carvings and goldsmith-work,

costly prints, musical and arithmetical instruments, chess and other games, precious stones, furs and fragrant spices.

For several generations Europe had shown extraordinary fertility in artistic talent and educated men were conscious of the harvest. In all countries distinguished personages formed collections which in their entity appear to have been mainly leisurely pastimes and a means of embellishing the decorous background of life. The mighty and rich were, however, not alone in their desire for the possession of collections of a variety of beautiful and interesting objects; they were joined by people of the middle classes.[6]

The nineteenth and twentieth centuries saw the miscellaneous collections increasing in number and decreasing in scope and quality. The middle-class townsman was conspicuous among its owners. In addition to a few paintings there was in the drawing-room the "vitrine", a cupboard with glass doors containing a small assemblage of heterogeneous matter, china, embroidery, a bronze, a fragment of a pseudo-ancient sculpture, and perhaps a Chinese or other exotic garment. One or some of the pieces may have been of sentimental value, but as a whole, the *vitrine* was an indifferent piece of furniture. Not sufficiently beautiful or interesting, the collection as a rule hardly arrested attention and explicitly stimulated neither thought nor emotion. Nevertheless it was handed down from parents to children and in an inarticulate manner fulfilled a function by bringing a hint of adventure into a drab environment, and adding a touch of colour and distinction to standardized mediocrity.

REFERENCES AND NOTES

1. Primisser, A., *Die Kaiser-Koenigliche Ambraser Sammlung*, Vienna, 1819.

Pighius, S., *Hercules Prodighius*, seu Principis Juventutis Vita et Peregrinatio, Antwerpiae, 1587, pp. 235, 236–9. The account of the Ambras collection is part of a travel book which Pighius, a Dutch archæologist, wrote for the enlightenment of his former pupil Prince Johann Wilhelm of Cleve.

Compare, Appendix, p. 226, the Frenchman Misson's seventeenth-century account of the archduke Ferdinand's famous collection.

The author of another sixteenth-century account of Ambras was Hainhofer, a cabinet maker who supplied the archduke and other contemporary collectors with fine cases for their specimens, and who for the benefit of his own children at home wrote notes about things which impressed him during his travels. Hainhofer, P., "Reisen nach Innsbruck und Dresden", *Eitelberger's Quellenschriften fuer Kunstgeschichte*, Vienna, 1901.

2. The merits of Alphonso of Aragon and Naples, a prince of the early Renaissance, were extolled by a contemporary author in the following terms: "Philosophiae, Theologiae, atque omnis antiquitatis studiosus. . . . Urbem

Napolim . . . constravit. . . . Arcem instauravit cum arcu triumphali. . . . Aureis argenteisque vasis, simulacrisque, tum gemmis. . . . Reges superavit." Facius, op. cit. (p. 7, n. 12), chapter " De Regibus ac Principibus ".

As another example of a large collection of portraits, painted, drawn and engraved, may be quoted that of the Duke of Portland at Wellbeck Abbey and London, which in 1861 contained 653 pictures. Fairfax Murray, C., *Catalogue of Pictures belonging to His Grace the Duke of Portland.*

3. " La première salle est embellie de divers tableaux. . . . Une autre salle remplie de toutes manières d'instruments . . . de quelz le dit maistre Jaques savait jouer de tous. . . . Une autre salle estoit garnie de jeux d'eschez. . . . Item ung estude . . . de pières précieuses. . . . Item pluseurs chambres richement adoubez de lits, de tables . . . draps . . . tapis . . . bel homme, de honneste habit. . . ." Guillebert de Metz, *Description de la ville de Paris au XV siècle,* ed. by Le Roux de Lincy, Paris, 1855, pp. 67–8.

4. Bonnaffé, E., *Recherches sur les Collections des Richelieu,* Paris, 1883, p. 31.

Compare Appendix, pp. 224–31, extracts from sixteenth- and seventeenth-century accounts of contemporary collections in Italy (Venice and Florence) and Central Europe.

5. Carducho, " Dialogos . . .", (ed. Canton), op. cit. (p. 22, n. 17).

6. How numerous in the seventeenth century private collectors were among the middle-classes in France may be gathered from some paragraphs in Evelyn's *Diary,* op. cit. (p. 21, n. 15). On February 27th and March 1st 1644, he wrote : " We returned to Paris . . . I went to see the Count de Liancourt's Palace in the Rue de la Seine . . . (follows a detailed account of viewed paintings). The Count was so exceeding civil, that he would needs make his lady go out of her dressing-room, that he might show us the curiosities and pictures in it."

" We went thence to visit one Monsieur Perishot, one of the greatest virtuosos in France, for his collection of pictures, agates, medals, and flowers, especially tulips and anemonies. The chiefest of his paintings was a Sebastian, of Titian."

" From him we went to Monsieur Frene's. . . ."

Further information about French collectors in the seventeenth and eighteenth centuries, among the higher classes of society mainly, may be gathered from the Memoirs of the Abbé de Marolles, op. cit. (p. 27, n. 6), vol. III, pp. 266 sq., and from an article on " Collectionneurs de l'ancienne France " in the *Gazette des Beaux Arts,* Paris, 1869, with its references to several contemporary sources. One of those sources is the *Livre Commode* or " Trésor des Almanachs ", by A. de Pradel, published in the years 1690–2 ; the volume of 1692 contains a list of " Fameux Curieux " and " Dames Curieuses ".

Section V

Collections as Means of Stimulating Curiosity and Inquiry

Pliny described human nature as " migratory and curious ", and indeed, in his era circumstances in the Roman Empire encouraged both curiosity and travel. The world-wide empire was knit together by roads, and during a prolonged period of peace standards of security and comfort had been increasing. People made sea voyages and endured long journeys for some remote sight ; they were anxious to view things for the sake of their rarity or strangeness, for their sheer fame or literary notoriety. " First of all, travellers bent their steps to the temples, as best satisfying their craving for sights and information. . . . The precincts of temples often enclosed . . . parks and preserves of sacred animals and birds . . . they abounded in dedicatory gifts and rarities. . . ." [1] In the temple of the Syrian goddess at Hierapolis were on view barbaric garments, Indian jewels, tusks of elephants and the jaw of a snake. In the temple of Hercules at Rome hides were exhibited which were supposed to be those of animals encountered in Africa by soldiers of Marius at the time of the Jugurthine war and valued for their capacity to kill people by merely looking at them. In the temple of Juno Astarte at Carthage skins of " hairy savage women " were to be seen, which had been found on the west coast of Africa by Hanno the Carthaginian. The " Curiosa Naturalia et Artificialia " included skeletons of human and animal monstrosities, rare plants, curious instruments such as forceps for pulling teeth or an obsolete flute and foreign weapons. Objects received from the provinces were exhibited within and around temples on the occasion of games and processions.[2] In his *Description of Greece*, Pausanias wrote of tritons, of Ethiopic bulls (which they called rhinoceroses) . . . and Indian camels he had viewed.[3] Apparently the existence of such a fabulous creature as a triton was accepted without question, and it would appear as if the quality of strangeness retained its special appeal until a comparatively late date of ancient history, the disposition of the masses to feel awe being transformed very slowly into curiosity or into inquiry.

If awe—an attitude of passive submissiveness—may be distinguished from curiosity with its disciplined impulse to an upright and active attitude of mind, curiosity in its turn differs greatly from the spirit of inquiry. Interest in a variety of topics may be expressed in a manner of curiosity as well as of inquiry. Whereas the *curieux*' mind jumps from one item to another, the inquirer charts his path of thought according to some plan and steadily travels along it. The variety of the latter's interest is reducible to an entity and enlivened by the force of coherence between the single items, contrary to the *curieux*' sheer mass of unrelated subjects. Whereas the inquirer's response is based primarily on reason, the *curieux* gives vent mainly to emotions.[4]

The evolution of a spirit of inquiry was a mark of the ancient Mediterranean civilization. In their midst arose Greek thinkers and Roman law-givers, and the Hellenistic period saw the rise of the large-scale research institute known as the Museum of Alexandria, founded in the third century B.C. and existing until the fourth century A.D., of which a brief description was given before.

During the Middle Ages, the European mind became dulled to the spirit of inquiry. In the small self-contained communities of agricultural and pastoral character to which western Europe largely reverted after the downfall of the Roman Empire, human endeavour was directed to the solution of everyday tasks rather than to philosophical contemplation. In addition, the Roman Catholic Church discouraged free thought and kindled the belief that man by his sin had forfeited his hope of salvation. It was in this atmosphere of mental lethargy and apocalyptic fear that the potentialities of the European mind to develop independent thought revealed themselves in Bacon's *De Scientia Experimentali*, a signal event, even if its immediate influence on progress through inquiry was deferred by the power of the Church represented by the newly founded Dominican and Franciscan orders. Ecclesiastic despotism, equipped with readjusted Aristotelian learning, offered final answers to all questions. Papal dictates warned men to "be content with the landmarks of science fixed by their fathers, to have due fear of the curse pronounced against him who removeth his neighbour's landmark, and not to incur the blame of innovation and presumption." [5]

Specimens in mediæval church collections reflected the general state of mind.[6] There were, above all, magic objects like holy relics or images, but among them appeared things brought from distant countries by crusaders and pilgrims which betrayed the

fact that behind the surrender of the intellect to superstition a more enterprising spirit lurked—curiosity. There may have been an ostrich egg or a mineral, a foreign garment or an implement. The monasteries of San Marco at Venice and St. Denis in France were renowned for such treasures, which seem to have fulfilled the double function of propitiating the higher powers and of attracting to the church visitors whose curiosity was stronger than their piety. These specimens represented a spirit akin to that of the contemporary Cosmographies in which the world was described by authors with minds half turned towards sound observation and half immersed in a mist of fables. What was unknown and unfamiliar, and not taught by the Scriptures, was regarded as abnormal, as terrible and yet as thrilling. Thus a *Mundus Mirabilis* was constructed by the authors of the *Specula Historialia* and the *Bestiaria*, and it would depend on the attitude of mind of the reader whether the information obtained from these books would deepen loyalty to the succouring Mother Church or stimulate curiosity.

Some private collections, in the late fifteenth and in the sixteenth centuries illustrated the watershed between mediævalism and humanism. Jean de Berry, Duke of Burgundy, possessed a considerable number of " curios ", rare games and clocks, shells from foreign beaches, an ostrich egg and the jawbone of a serpent, various mechanical instruments and telescopes, and the gospel of St. John written in microscopic letters on a piece of parchment the size of a silver coin. These objects were kept together with specimens of magic character, each set illustrating a different aspect of the human mind, the curio revealing nascent judicial reasoning, interest in human invention and skill, in the apprehension of nature and in the extension of knowledge, as distinct from a mainly emotional response to miraculous superhuman forces. In fact, Jean de Berry has sometimes been referred to as a figure at a turning point between two ages, the mediæval and the modern.

Fanciful belief in miracles and thirst for sober information seem to have been combined in the mind of the Emperor Rudolph II who in four vaulted rooms in his castle on the Hradschin in Prague kept cases and tables crowded with an infinite variety of objects.[7] In the microcosm of his collections he sought to overcome his melancholic temperament and to seek refuge from the grave problems of his empire. In addition to hundreds of paintings by European masters, bronzes and other objects of art he had idols and utensils from Egypt and India, globes,

periscopes, tools, games and musical instruments. Rudolph was one of the numerous intellectual adventurers of the sixteenth century, and his faith in man's potential powers over his environment knew no bounds. He hoped that a new invention would enable men to transform any metal into gold, thus offering a solution to all problems of state finance, and had a " chemical kitchen " installed in his palace ; he was an astrologer and regarded horoscopes as reliable records of human character and human fate ; he was a spiritualist and believed in the intercourse between the living and the dead. Yet fettered as his mind may have been by mediæval superstitions, his intellectual restlessness held something of the spirit of inquiry characteristic of generations to follow. By his manner of collecting Rudolph expressed the spirit of the sixteenth and seventeenth centuries when " workmen and princes rivalled in inventing ", when the Faust-Spirit, that declared all invention of new devices a Black Art and a fruit of intimacy with the devil, was being in theory overcome, but when Agricola, the author of *De Re Metallica*, gave proof both of sound acquaintance with mechanical devices and of belief in demons as important agents in mining.[8]

The revived tendency towards searching investigation began with the study of pagan classic literature in Italy, where already in the thirteenth century some influences of Greek learning made themselves felt through Greek monks coming from Byzantium. Poets were among the first to honour the classics and they were joined by wealthy citizens of the independent Italian towns. In 1360 a chair of Greek literature was established in Florence. Interest in Greek traditions, for centuries stifled in the West, was stimulated when after the capture of Byzantium by the Turks (1493) Greek scholars sought refuge in Italy. Soon the search of collectors for Greek manuscripts was extended to inscribed stones, and thence to ancient statuary.

Thriving on men's desire to observe matters through their own senses and to form conclusions based on judicial criticism, the opposition to scholasticism documented by classical study developed into a general spirit of invention and inquiry. The great era of European intellectual effort became also a new era of collecting, the collection offering opportunity for study based on observation. Indeed, the foundations for many collections, as we know them, were laid in particular in the decades of the seventeenth century after the militant era of the Counter-Reformation. Throughout western and central Europe collections were formed

under the influence of a like search for truth and gave another proof of the fundamental unity and inter-dependence of the European community, even if the efforts varied from time to time at different places. The great questioning minds of the period, Kepler, Descartes, Bacon, Newton and Leibnitz, were reflected both in the " Academies " [9] and in the " Cabinets " or " Museums " which came into existence in the later sixteenth and in the seventeenth centuries. The " curiosi ", " otiosi " and "virtuosi ", as the founders and members of the academies and the collectors were called, stood for Francis Bacon's interpretation of knowledge as power, as a means of increasing human control over nature, and of developing innate human ingenuity and superiority. The scope of their interest was encyclopædic and embraced under the general title of Experimental Philosophy the moral and natural sciences, archæology and ethnology, history and literature.

When the first Society of Antiquaries was founded in London, in 1572, its purpose was to contribute " to separate falsehood from truth and tradition from evidence ", and to sift history by the " sagacity of modern criticism ", " in an age wherein every part of science is advancing to perfection, and in a nation not afraid of penetrating into the remotest periods of their origin, or of deducting from it anything that may reflect dishonour on them ".[10] The antiquarian collection was recommended as supplying the materials for research into past history and as an aid in the preservation of remains. Numerous collections characteristic of the period existed in Italy (Pls. VI, VIIa). In Bologna there was the collection of the physician Ulisse Aldrovandi who set out to illustrate by specimens all external nature, and whose voracity for knowledge made him die a poor man, but one possessing an encyclopædia of natural history illustrated by drawings by an artist whom he had employed over thirty years at a yearly salary of 200 crowns. In addition to his interest in nature, Aldrovandi was an antiquarian who had studied the remains of ancient Rome and had collected antiquities for their ethnographical interest mainly, for instance idols as illustrations of mythology. His collections became later the property of Cospi, an amateur physicist and mechanic, known in Bologna as the " nobile mechanico ", who enlarged the museum [11]. Another Italian seventeenth-century " Musaeum ", in the ducal palace at Modena, contained natural rarities, jewels, coins, dried plants and drawings by great masters. A similar collec-

tion existed in the seventeenth century at Verona. Started on lines of natural history by Calceolari, it was continued by Moscardi, a nobleman of predominantly antiquarian interests who assembled ancient inscriptions, statues, lamps and weapons. In Milan the physician and " virtuoso " Settala and his son founded in their house a museum of medals, cameos, philosophical instruments, articles of glass and metal, and chemical preparations.[12]

The seventeenth-century museum of the Danish physician Olaf Worm, which combined specimens of natural history and prehistoric archæology may stand as an example of similar collections in other countries [13] (Pl. VIIb). The catalogue of the collection was for many generations a widely read manual, mainly on archæology. In Holland the Anatomy Hall at Leyden (Fig. 5) developed into a Museum containing in addition to anatomical specimens a variety of objects which in present-day language would be termed archæological and ethnological. There was a model of a Norwegian house, footwear from Russia, Siam and Egypt, arms, paper and songs from China, Egyptian mummies, idols and Roman coins.[14] In Germany, in the late sixteenth century, the Elector Augustus of Saxony was induced by the writings of the mineralogist Agricola to form a collection, a " Kunst-und Naturalienkammer ", i.e. a collection embracing both science and arts. Another prominent collection of that period, assembled by a German in Rome, was the Museo Kircheriano [15] (Pl. IXa). Its founder was the Jesuit Pater Athanasius Kircher, a polyhistor and author of curious writings of encyclopædic character, which ranged over optics, physics, physiology, fossils, music, languages, art, the perpetuum mobile and the Kabbala. He bequeathed his Museum, which at the same time was a laboratory, to the Jesuit College.

Detailed knowledge has been preserved by their catalogues of two seventeenth-century German collections. One was known as the " Gottorfsche Kunstkammer ", and the catalogue written by A. Olearius, librarian and curator to the prince of Gottorf[16] (Pl. IXb), stated that the nucleus of the collection had been assembled by the learned Dutch doctor of medicine Paludanus in his travels through the Orient and Occident, and in 1651 had been purchased from the doctor's heirs and brought to Germany where numerous rare and precious objects had been added to it, together resulting in a " diversity " of " uncommon " things, " partly natural and partly produced by human hands, and representing some of the wonders on earth and what has happened

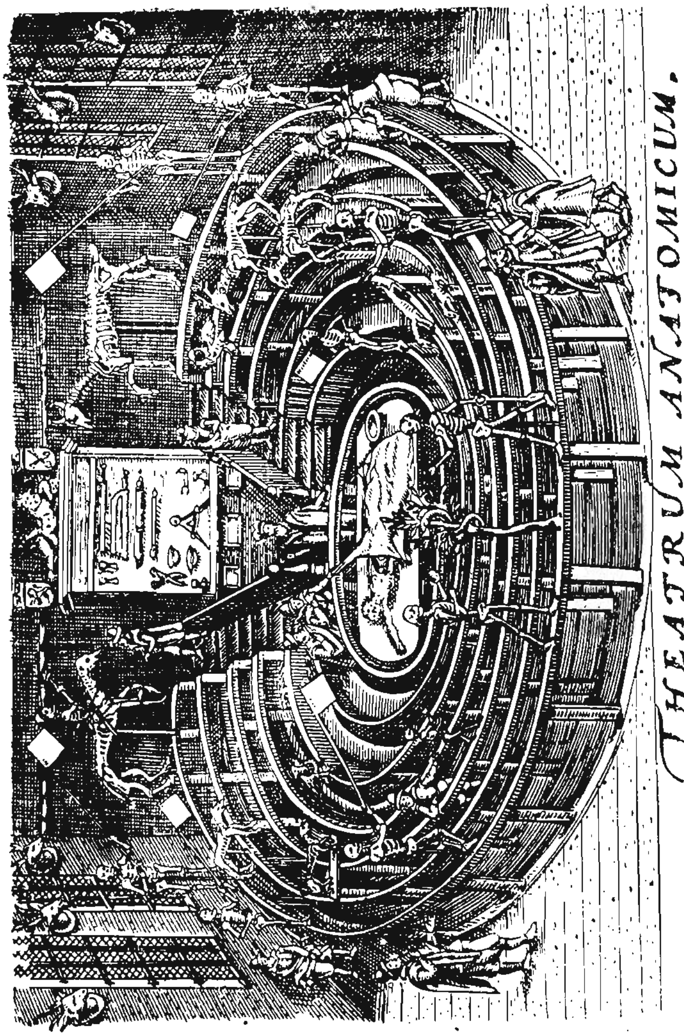


FIG. 5.—*The Anatomical Theatre in Leyden.* From Meursius' "Athenæ Batavæ . . . ," Lugduni Batavorum, 1625.

among the Ancients ". " Varietas delectat ", wrote Olearius in appreciation of the encyclopædic character of the information offered by the collection, and he stressed the value such a collection had as a means of extending knowledge, in addition to the enjoyment it offered to leisured people who wished to while away their time. In the catalogue of the second collection, written by the owner himself, a certain Neickelius,[17] it was stated that " idleness creates wickedness " and that the human mind resembles the Perpetuum Mobile. Collecting was recommended as a medicine against the sin of laziness. The catalogue described the collection owned by the author which again embraced both science and arts. Further, suggestions for the arrangement of collections in general were offered, together with a list of contemporary collectors (Fig. 6). Another German collection of importance belonged to M. B. Valentini, court physician to the Duke of Hesse and Professor of Medicine and Experimental Sciences at Giessen in the late seventeenth and the early eighteenth centuries. In his " repositorium " specimens of natural history were mixed with " artificial curiosities ". His interests embraced coins, medals, apparatus connected with anatomy, chemistry and surgery and idols of various religions.[18]

The opening speech of the Conde de Lemos in the Academy at Valladolid, in the foundation of which he had been instrumental, may be quoted as a further example of the rising tide of intellectual curiosity of those generations, and of the spiritual kinship between the newly founded collections and the new research centres called Academies. The Conde said : " The purpose of this Academy is to bring together men of different interests. . . . Laziness is a pestilence and the worst pestilence is ignorance. . . . In these meetings each of us shall be both a teacher and a student. . . ." [19]

From these examples alone it can probably be seen that among men who founded and kept collections serving the advancement of knowledge were many scientists, but that the scope of their interests transcended their professional field. They collected archæological and ethnological specimens as well as specimens of nature, and represented to some degree the type of the " complete man " in the humanistic sense of the term.[20] These interests included a newly awakened awareness of peoples of distant countries. In antiquity such an awareness had dawned upon the Greeks, and Herodotus had been followed by the geographers of Alexandria under the Ptolemies. Yet with the break-up of the

Fig. 6.—Early eighteenth-century blue-print for a "museum", as recommended by D. F. Neickelius in his *Museographia*, Leipzig, 1727.

Roman Empire the relations between West and East deteriorated and it was only in the Renaissance that Europe again became truly conscious of the existence of Asia. Travellers' accounts impressed people's imagination and Montaigne was among those who started a collection of ethnographic specimens, though not of Eastern but Indo-American origin.

An aspect of these collections that may be noteworthy is the gradual transition from collections in which the " curio " was still conspicuous to others with fewer fanciful elements. The learned curator of the Gottorf Museum, A. Olearius, described in his catalogue the jaw of a whale which measured 62 feet in length and 17 feet in height, so that a tall man could stand within. Apparently this whale possessed magic qualities, since in the year following the appearance of the beast on the beach of Westerhafen, peace had been signed between Germany and Sweden. Neickelius in his catalogue described a corpse of an Indian whose life-spirits had been extinguished by the winds in the mountains of Chile. This author and collector held the view that all mummies were a result of the conditions in the African desert. Further, he wrote of the migration of souls which sought a new embodiment once in 7,000 years and retired finally after an activity of 40,000 years. In the ducal collection at Modena were to be found a piece of amber containing a fly and a calendar written on wooden leaves, and the Museum in the Anatomy Hall at Leyden kept a " hand of a mermaid ". The terms " Curieux " and " Curiosité " outlived the tendency to collect objects of fabulous character. In France the popular term for collectors in the eighteenth century was still " Curieux ". A contemporary author of a catalogue of a private collection wrote :

> . . . necessarily everybody needs some kind of amusement ; the human spirit demands relaxation and distraction ; as a rule our pleasures are prompted by our passions . . . but a Curieux often enjoys the benefit of not being at the mercy of the passions of human nature. The objects attracting his curiosity will fill the void of his desire. He will be amused by what he possesses and kept busy by the search for new objects he fancies to possess.[21]

None of those early collections on the Continent survived in their entirety. Most of them were dispersed completely and fragments of a few of them were incorporated in later collections. England, however, owes two of its great Museums, if not the greatest, to two seventeenth-century men who in their quest for truth assembled great collections. One of them was the Dutch-

man John Tradescant, amateur traveller and later supervisor of the gardens of Charles I, whose collecting resulted in the Ashmolean Museum in Oxford, and the other was Sir Hans Sloane, the physician, whose private collection became the nucleus of the British Museum.

A catalogue published in 1656 listed the contents of the Museum Tradescantianum at South Lambeth in London. There were stuffed animals and dried plants, minerals, implements of war and domestic utensils of various nations, also coins and medals. The Tradescants, both father and son, had during their travels in Europe, Russia, Turkey and Egypt procured specimens of whatever seemed " rare " and " curious ".[22]

Sir Hans Sloane (1666–1753), famous London physician and President of the College of Physicians and of the Royal Society, made a journey to Jamaica to collect specimens of certain plants connected with his scientific work. By 1725 he had amassed thousands of specimens of natural history. By 1733 the collection numbered 69,352 items, books printed, handwritten and illuminated, things related to the customs of ancient times, instruments, urns, pictures (only partly referring to natural history), mathematical instruments, vessels made of agates, jaspers and crystal, cameos and seals, coins and medals.

Another English physician-collector who represented the encyclopædic interests of the time was Dr. Richard Mead (1673–1754) who studied classical archæology at Utrecht and later botany at Leyden, and whose house in London had the reputation of containing everything that was curious in nature and in art. Further representatives of the seventeenth-century encyclopædic tradition were the brothers Balfour, Sir Andrew and Sir James, who set up a large collection of specimens of natural history and of antiquities in Scotland.[23]

Modest contemporary variations of those important collections, but well illustrating the growing spirit of inquiry were collections of rarities in such unpretentious localities as Saltero's coffee house in Chelsea in London[24] or the " Spring Gardens " at Charing Cross in London. The stimulus to the imagination given by any of these collections may be illustrated by a few verses of a boy who had viewed Sir Ashton Lever's collection at Leicester House in London and who wrote :

> View there an urn which Roman ashes bore,
> And habits once that foreign nations wore,
> Birds and wild beasts from Afric's burning sand.
> And curious fossils rang'd in order stand.[25]

REFERENCES AND NOTES

1. Friedlaender, L., op. cit. (p. 27, n. 3), vol. I, p. 368 ; vol. IV, pp. 6 sq., 11. Burckhardt, J., op. cit. (p. 36, n. 11), pp. 89–103.

The variety of specimens, and objects of art among other things, which aroused the interest of people in ancient times may be seen from Lucius Ampelius, *Liber Memorialis* (a cosmography assumedly written in the third or fourth century), ed. by Assmann, E., Lipsiæ, 1935.

In the eighth chapter, and under the heading " Miracula quae in terris sunt " the following objects were named among others :

2. " Ambraciae in Epiro in pariete sunt picti Castor et Pollux et Helena manu autocthonis . . ."
5. " Sicyone in Achaia in foro aedis Appolinis est. in ea sunt posita Agamemnonis clipeus et machaera, Ulixis chlamys et thoracium . . . Adrasti arca . . ."
11. " Ilio lapsis est quadratus, ubi Cassandra fuit alligata ; quem si ante . . . fricueris, lac demittit ; ex altera autem parte similiter si frices . . . sanguinem demittit."
14. " Pergamo ara marmorea magna alta pedes quadraginta cum maximis sculpturis . . ."

2. Schlosser, op. cit. (p. 21, n. 14), (1908).

3. Pausanias, op. cit. (p. 36, n. 9), IX, 21.

4. One may suggest this change, or the tendency towards it, as another criterion of evolution from the primitive to the civilized mind. Compare Condorcet's, *Progrès de l'ésprit humain*, Paris, 1796 ; Condorcet and d'Alembert, forerunners of the sociologist Comte, distinguished between three consecutive phases in the development of the human mind, which they called " theological ", " metaphysical " and " positive ".

5. Weld, C. R., *History of the Royal Society*, London, 1848, vol. I, p. 2 (quotation from the *History of the Popes*, vol. I, p. 502).

6. Denis, J. F., *Le Monde Enchanté*, Paris, 1843.

Lacroix, P. op. cit. (p. 36, n. 15).

Schlosser, op. cit. (p. 21, n. 14), (1908).

Compare Appendix, p. 227, extracts from a seventeenth-century account of the imperial collection in Vienna.

7. Haendler, G., *Fuerstliche Maezene and Sammler in Deutschland* (Studien zur Deutschen Kunstgeschichte), Strassburg, 1933.

Venturi, A., " Zur Geschichte der Kunstsammlungen Kaiser Rudolph II ", *Repertorium fuer Kunstgeschichte*, Stuttgart, 1885.

8. At an earlier date a greater mind than Rudolph's had considered the same method of dealing with state finances by converting base metals into gold. It was Roger Bacon, otherwise the defender of physics as opposed to scholasticism.

Nussbaum, op. cit. (p. 21 n. 4), p. 82, quoted the Marquess of Worcester (1601–67) who invented a " telegraphy with cannons ", an " unsinkable ship ", " a floating fort, a flying machine, a calculating machine ", etc. The same author wrote of the eight things " after which the learned and curious strive ", —the stone of the philosopher, the liquor Alcobets, flexible glass, a perpetual light, the hyperbola in mirrors, the length of the degree, the squaring of the circle and the perpetual motor.

Agricola, G., *De Re Metallica*, English translation from the first Latin edition, of 1556, by Hoover, H. C., London, 1912.

9. Weld, C. R., op. cit. above, vol. I, pp. 10 sq.

Peusner, N., *Academies of Art*, Cambridge, 1940.

Young, R. F., *Comenius in England*, 1932.

Harnack, A., *Geschichte der Kgl. Preussischen Akademie der Wissenschaften*, Berlin, 1910, vol. I, p. 5. (" The Universities of Europe were born at the high tide of the Middle Age, and their institutions corresponded to the mediæval view of transmitting the body of knowledge in fixed terms. The European Academies are an expression of the new spirit which was henceforth to obtain its power in the domain of life and thought.)" English translation from Young, R. F., op. cit. (p. 67) pp. 2–3.

The Platonic Academy at Florence, founded in 1470, was devoted to literary interest. Later, natural science received greater attention. The Societas Secretorum Naturae in Naples was founded in 1560, the Royal Society in London in 1660 and the Academie des Sciences in Paris in 1666.

10. *Archæologia*, vol. I, London, 1770.

11. Cremonese, L. L., *Museo Cospiano annesso a quello del famoso Aldrovandi*, Bologna, 1677.

12. *Museum Calceolarium*, Verona, 1622.

Moscardi, L., *Note overo Memorie del Museo* (Moscardi), Verona, 1677.

Compare Appendix, p. 231, a seventeenth-century account of contemporary Italian collections.

13. *Museum Wormianum*, seu Historia Rerum Rarorum, Batavia, 1655.

14. Compare Misson's seventeenth-century account of the Anatomy Hall at Leyden.

15. Bonani, P., *Museum Kircherianum*, Rome, 1709.

Sepibus, G., *Romani Colegii Societatis Jesu Musaeum Celeberrimum*, Rome, 1678.

16. Olearius, A., *Gottorfsche Kunstkammer*, Gottorf, 1674.

17. Neickelius, C. F., *Museographia*, ed. by Tanold, D. J., Leipzig, 1727.

18. Valentini, M. B., *Museum Museorum*, Frankfort, 1704.

19. " El intento de esta Academia es hacer una confeccion . . . de diversas profesiones. . . . Peste es la ociosidad, y mas rigurosa peste es la ignorancia. . . . En estas juntas . . . todos somos maestros y discipulos ", Villena, A. P. M. de, *El Conde de Lemos, un Mecenas Español del siglo XVII*, Madrid, 1911, p. 162.

20. Dr. Stukeley, eighteenth-century English antiquarian and co-founder of the Society of Antiquaries, explained that his *Itinerarium Curiosum*, published in 1724, was an account of the antiquities and remarkable curiosities *in nature or art* observed in travels through Great Britain (italics mine), and that he published it " to oblige the curious ".

21. Gersaint, E. F., *Catalogue de Curiositées du Cabinet de Feu M. Quentin de Lorange*, Paris, 1744.

22. The *Catalogue of the Musaeum Tradescantianum* or *A Collection of Rarities preserved at South-Lambeth neer London*, by J. Tradescant, published in London in 1656, contained the following address to the prospective readers : " To the ingenious Reader " : " . . . That the enumeration of these Rarities (being more for variety than any one place known in Europe could afford) would be an honour to our Nation, and a benefit to such ingenious persons as would become further enquirers into the various modes of Natures admirable work and the curious Imitators thereof . . ."

23. *Catalogue* of the Collection of the late *Dr. Mead*, sold by auction . . . London, 1755.

Walker, J., *Essays on Natural History*, " Memoirs of Sir Andreas Balfour," London, 1812, pp. 353, 364–5.

24. *The Tatler*, No. 34, Tuesday, June 28, 1709 (The Lubrications of Isaac Bickerstaff, Esq., London, 1754, vol. I). From our own Apartment, June 27.

" Being of a very spare and hective Constitution, I am forced to make frequent Journies of a Mile or two for fresh Air ; and indeed by this last, which was no farther than the village of *Chelsea*, I am farther convinced of the Necessity of travelling to know the World. . . . I fancied I could give you

an immediate Description of this Village, from the Five Fields . . . to the Coffee-House where the *Literati* sit in Council. . . . When I came into the Coffee-House, I had not time to salute the Company, before my Eye was diverted by ten thousand Gimcracks round the Room, and on the Cieling. When my first Astonishment was over, comes to me a Sage of a thin and meagre Countenance. . . . My Love of Mankind made me benevolent to Mr. *Salter* ; for such is the name of the eminent Barber and Antiquary . . . this personage would make a great figure in that Class of Men which I distinguish under the Title of *odd Fellows*. . . . For he is descended not from John Tradescan, as he himself asserts, but from that memorable Companion of the Knight of *Mancha*. And I hereby certify all the worthy Citizens who travel to see his Rarities, that his double-barrelled Pistols, Targets, Coats of Mail, his Sclopeta and Sword of *Toledo*, were left to his Ancestor by the said Don *Quixot* . . . down to Don Saltero. Though I go this far in favour of Don Saltero's great Merit, I cannot allow a Liberty he takes of imposing several Names on the Collections he has made, to the Abuse of the good People of England ; . . . one of which may introduce heterodox opinions. He shews you a Straw-Hat, which I know to be made . . . three miles of Bedford ; and tells you *It is* Pontius Pilate's Wife's Chambermaid's Sister's Hat. . . . Therefore this is really nothing, but under the specious pretence of Learning and Antiquity, to impose upon the World . . ."

In the eighteenth century, if not before, interest in " natural and artificial curiosities " seems to have been a feature of intellectual life in various countries and to have extended beyond the sphere of scholars into the class of middle-class merchants. The following contemporary poem on the cabinet of a Frankfort citizen runs as follows :

> " Das Wunderzeughaus voller Spur der unerschoepflichen Natur
> Wo man ihr tiefverborgenes Wesen entdeckt und entziffert sieht
> Hier sprach ich, kann man unbemueht, des grauen Alters Zustand lesen."

(Uffenbach, J. F. *Gesammelte Nebenarbeit*, 1733, p. 209).

Compare Holst, v. N., " Frankfurter Kunst und Wunderkammern des 18ten Jahrhunderts, ihre Eigenart und Bestaende ", *Repertorium fuer Kunstwissenschaft*, vol. 2, Berlin, 1931.

25. Murray, op. cit. (p. 39 n. 5), vol. I, p. 176.

SECTION VI

ART COLLECTIONS AS MEANS OF EMOTIONAL EXPERIENCE

Several functions, it would appear, are within the potentialities of the single object of art and of a collection containing a number of them. On the evidence supplied by art collections of several different societies the following observations may be made.

Among the statues and paintings in the " open-air collections " of the street and square in ancient Greek towns were some in which emphasis seemed to have been laid on their informative value.[1] In Ægina, in a colonnade near the market-place, there were statues of the women and children whom the Athenians entrusted for safekeeping to the Trœzenians at the time when they had made up their minds to evacuate Athens and not to await the attack of the Persians on land. In Olympia a set of figures in bronze represented a boys' choir who were shipwrecked and drowned on their way to the festival city. In front of the Colonnade in Athens stood a statue of Solon the law-giver, and there were in many places, above all at Athens, Delphi and Olympia, statues of men and women who had some title to fame, and wall-paintings representing battle scenes or other events in the past of the Greek community. All these and similar statues and paintings offered factual information to great numbers of people, and preserved information for generations to follow. But were they conveyors of bare facts merely, or was their rôle of greater scope and complexity? To this question we shall revert later.

In Rome images were used for the purpose of conveying messages, and paintings depicting actual events were shown in processions and in the law-courts.[2] Such a utilization of the purely informative properties of images should not, however, lead one into the error of thinking that the Romans did not at all value æsthetic qualities. The ill-famed Verres had at the time of his governorship of Sicily a silversmith's workshop installed in his palace at Syracuse where the vessels of silver and gold which he appropriated by way of confiscation were stripped of their ornaments. After being robbed of their æsthetic value they were returned to their legitimate owners.[3]

While in the Middle Ages religion was the chief theme for the

artist's brush and chisel, the range of subjects grew in later years. In his *Museo Pictorico*, (1715) the Spanish artist and author Palomino listed artists according to their subject-matter, as painters of battle-scenes, fruit or portraits. The Bohemian engraver W. Hollar was internationally known as an illustrator of scenery, towns, types of men in different countries, and of the clothes they wore. Sculpture and paintings being means of copying God's creation—sky, water, earth, animals—were all referred to as man's most excellent arts by the Italian author Borghini.[4] Similarly, Vasari wrote in 1547 in a letter to a friend that German paintings enjoyed great popularity in Italy because they represented landscapes [5] (while the southern artists preferred portraying the human figure). The French eighteenth-century collector Abbé de Marolles succeeded in accumulating 500 volumes of engravings, a truly encyclopædic body of " pleasurable information on all things imaginable ".

During the Napoleonic war a portrait of the ruling king Fernando VII was exhibited from the balcony of the town hall of Madrid and proved to be a successful appeal to men to join the army.

Obviously in times lacking the device of photography portraits by artists were in great demand by people who could afford to pay the required fees. Portraits, mostly in the form of statues and busts, or in relief, were common in ancient Rome, as their realistic style fitted the purpose of information. According to the account by the Spanish author J. Martinez, the emperor Charles V after coming to the throne engaged two artists, one for portraits and another for " historias " of the Bible.[6] The portrait painter was a certain Rolan Mois, a " wonderful Flemish artist " (" Flamenco maravilloso retratador ") whose first task in Spain was to paint the images of sovereigns of the past. He had to draw his inspiration from existing pictures of poor quality, " dry and stiff ", but the result was excellent and brought him many new and well-paid orders. In past centuries princes first saw the countenances of their potential brides in the form of portraits painted for the occasion. The proximity to reality in these images, or in general in information conveyed by artistic means, may have been of varying degrees, yet considering the deviation from an ideally balanced presentation of facts, which often is a feature even of modern interpretation expressed in sober mechanized techniques one would hesitate to gainsay the informative content of objects of art.

This brings us to another, and it would seem, to the chief function of objects and of collections of art : to their capacities to stimulate comprehension of matters beyond the surface value of information and to enable the spectator to grasp its deeper and wider implications ; or, as Max Friedlænder suggested, to " interpret in visible terms emotional values ".[7] What G. Scott wrote about architecture may be repeated with reference to painting and sculpture, " that they convey refinement of meaning and awaken trains of association of which mere unassisted syntax is incapable ".[8]

At this juncture an ancient Greek scene, from Herondas' " Mimiambs ", may be recalled. Two women, Cynno and Coccale, have come to the temple to sacrifice to Asklepios. After having deposited their votive table they embark upon a conversation about the statues and paintings in the temple. Coccale : " O what lovely statues . . . Why, you would say they would all answer back to our remarks . . . we'll see men bringing stones to life . . . look . . . that naked boy would bleed for certain, Cynno, if I scratched his pores of paint : the flesh lies warm upon the painters image . . . haven't they all . . . the gleam of life . . . ? "[9] It would seem that the sight of the images stimulated the two simple-minded women in twofold manner. They felt excited by what they called " beauty ", in other words their general emotional tone was heightened by the stimuli of the rhythm, the harmony and the colours of the works of art, and their joy in being alive was enhanced by the vitality bestowed by artists on images of stone and paint.

The human desire for experiences enhancing the consciousness of life, and of being alive, is at the core of art, both of its creation and of people's enjoyment of it. In a simple and direct manner the archaic dance, in early Greece or in a present-day community of primitive culture, expresses the fundamental human emotion over the issue of the finality of life which seeks consolation in the idea of resurrection whether in the form of initiation rites where it concerns human life, or in the form of spring festivals where the fecundity of plants and animals is concerned.[10] To shake the earth from winter sleep the Greeks danced their emotion-charged, leaping dance, their " dithyramb ", which, it is assumed, was the origin of the drama, and from their own performance they drew encouragement and confidence in the persistence of life. The image in stone or paint is potentially a translation of the dynamic dance into a static form of not necessarily lessened

dynamic powers and it is capable of transmitting its vitality to people sharing its experience as mere spectators.

Desire for experience of vitality as an undifferentiated, inchoate life-force may be at the basis of human emotions, even if in the consciousness of the mind it may appear under the cloak of different symbols and be connected immediately with a religious faith, with the ambition to achieve success in an enterprise, with pride, with eros, or otherwise. The particular content, whatever its form, may then in itself stimulate the emotions of persons interested in them. The mere name of Napoleon, spoken or written, would have stirred the feelings of a soldier of the Grande Armée, and any token, however ungainly in appearance, of a beloved person may after his death become a stimulus to the emotions of his friends. Yet it would seem that the object of " artistic " qualities—the object embodying rhythm, harmony and colour—holds an exceptional position in regard to its capacities for releasing emotions.

The Greek statues representing women and children evacuated from Athens at the time of the pending Persian invasion recorded an episode in a great war and were a means of conveying information. Their rôle, however, was of even larger scope. As distinct from a bare statement of facts these figures enshrined a variety of human emotions and suggested ethical principles. Through its artistic form the information so conveyed could grow into a message and widen to a legend. If of true æsthetic quality, the image would arrest the attention of indifferent passers-by and would, by its appeal to the emotions, provoke thoughtfulness even in the less contemplative and stir the imagination of the dull. The artistic representation of an episode might open up vistas into great history of which the particular incident was a part and might turn a distant event of the past into a human theme, that would become entwined in the pattern of people's minds and in the background of their future personal experiences. The statue of Solon might be not merely the portrait of one particular man but arouse sentiments of confidence, distrust, hope or fear in relation to statesmen and law-givers in general. It would seem that the difference between the approach to such a portrait and to a painting of allegorical character, like that representing " Theseus, Democracy and the People ", was not fundamental, though the allegory would enlarge the scope of associations of the spectators and facilitate their imaginative experience.

Ancient authors have confirmed both the capacity of objects

of art to make emotions tangible and the effects of art on human emotions. " Parrhasios . . . painted an ingenious personification of the Athenian ' Demos ', discovering it as fickle, passionate, unjust, changeable, yet exorable, compassionate and pitiful, boastful, proud and humble, bold and cowardly, in a word, everything at once."[11] Pliny did not add any description of the feelings experienced by people viewing the statue, but a suggestion of this sort is contained in Pausanias' writings, in connection with the statue of Zeus in the Council House at Olympia which he described as ' being of all images the best calculated to strike terror into wicked men '.

It is tempting to imagine the experiences of people when confronted not with a single object of art but with a collection of statues and paintings, such as were on view in the streets of Athens, Delphi and Olympia. Since no record exists that can afford insight into the working of the minds of visitors to the festivals at Olympia nothing but a hypothetical reconstruction can be suggested. The games, which in fact were the chief event of the performance, are not our concern ; we shall try to consider the works of art as if they were a collection. There is the temple of Zeus with reliefs on its gables showing a struggle between men and centaurs, in which the humans subdue the unsightly, violent creatures with the features of men and the hoofs of beasts. The legendary scene may be interpreted in twofold manner ; as a symbol of human progress, in the form of a Greek triumph, and of the eternal struggle between the forces of light and darkness in man. In both these guises the scene makes appeal to a variety of human emotions, to feelings of guilt and shame as well as of hope and confidence. Satisfaction and joy are evoked when the visitors enter the temple and face the statue of King Iphitos of Elis being crowned with laurels by the Goddess of Peace. The group in bronze was a memorial of the first treaty ever concluded between two Greek cities ; it was another memorial of progress in human civilization, the step from violent contention to reasoning argument. Then followed in the background of the temple, carved in marble, the great statue of Zeus, of the master of this world before whom all human pride would fade. Outside the temple of Zeus, without and within the other buildings of the festival town, paintings and statues formed part of the environment. There were the statues of athletes distinguished in games, of rhetors and of gods. There were the votive donations in a variety of form, illustrating both factual

episodes and states of the human mind. If summed up, the collection of works of art at Olympia, or in any other similar Greek " open-air museum ", is likely to have offered to spectators an experience comparable to that of the audience of a dramatic performance. Both would in a symbolic and impersonal manner stir people's emotions and offer relief—catharsis, purification of the mind. Both drama and works of art would have significance for great numbers of people, if not for every Greek.

Of the appeal of art to the emotions numerous instances are available from almost any community. In the inventory of the outstanding collection of Florimon Robertet, the Treasurer of the French Crown, Madame Robertet wrote after her husband's death, in 1532 :[12] " This picture (Michelangelo's ' Pieta ') is so life-like that only the breath is missing. I take confidence for every man and for myself when I look at the image of St. Peter which hangs over my mantelpiece." There it is again, in the Roman Catholic believer's ideology, the despair over death and the confidence in life after death. The Italian sixteenth-century author Armenini wrote that the stories of Christ and Mary represented by Titian, Corregio, Giulio Romano and other artists were so full of life that the sight of them filled with tears the eyes of the people who saw them. Another sixteenth-century writer, the artist Francisco de Holanda in his *Dialogos de Pintura* held that :

> The Flemish manner of painting will satisfy almost every believer better than any Italian picture which will cause nobody to shed a single tear, whereas the Flemish ones make men weep. Paintings make sad people feel joy and let the contented discover the existence of misery, they make the obstinate feel guilty, the worldly penitent, the heathen fearful and ashamed of himself. Paintings give us the experience of the torments awaiting us in hell, and the glory and peace in store for the men of good deeds . . . they make us realize the modesty of the Saints and the constancy of the martyrs, they make us experience love . . . pity . . .[13]

The contemporary Italian author Morelli (The Anonimo) explained the international popularity of Flemish paintings by their emotional appeal. The anonymous author of the catalogue of the collection of pictures of Castle Howard commented about No. 107 of the collection, Caracci's " Three Maries " as follows : " The deep tragedy which it exhibits . . . storms the human heart, to use the words of the great author, Dr. Johnson."

The popularity of mythological scenes in the sixteenth and seventeenth centuries was connected with the satisfaction of Europeans in associating themselves with ancient Mediterranean

M. Dutuit, a fine work of art produced by another person may offer opportunity for an emotional expansion not to be reached by the power of their own imagination. In his portrait of Charles V known as " Gloria ", Titian's subtle brush contrived to indicate something of the complexity and contrariety of the man Charles V and of the contemporary affairs of Europe. There is the Imperator Triumphans, an embodiment of stability, who in the battle at Muehlberg in 1547 had defeated the Protestants menacing the established order of things, but there is also the shadow of resignation, a foreboding of tragedy. In reality Charles V seems to have soon comprehended that the Protestants vanquished in battle remained undefeated in spirit, and his abdication from the throne and retirement to the solitude of Yuste, in 1556, were contradictory to the ebullient activity of his former years. It must have required the second-sight of a great artist to look behind the defences in the mind of the sitter for the portrait, if indeed the robust Charles was at all conscious himself at that time of what may have occasionally clouded his horizon.

Greco's picture " The Dream of Philip II ", which showed the king as a kneeling sinner at the gates of the Beyond, may not have satisfied the expectations of Philip himself, but it nevertheless enshrined a unique assortment of associations between the earthly and the heavenly spheres. It would appear as if a work of art had the capacity to amalgamate features that might seem inconsistent on the plane of reason and if expressed by means of the articulate word. Whereas a description proceeds from one item to another in succession, the painting or sculpture presents several features simultaneously, and this simultaneity of impact seems to create a special tension. A painting or a sculpture may be a translation of a dramatic performance into a static form, the more dramatic perhaps since experienced in the course of a few brief moments.

This brings us to another point for consideration, which in fact is on the line of the main argument of this essay. We have assumed that the rôle of the single object of art is to make a special appeal to the emotional side of the human mind. But what is the function of a collection of objects of art? (Pl. X). In connection with objects of art in ancient Greece reference was made to the fact that whatever the shape or content of a painting or sculpture may have been, it bore a message to the people of Greece. The men, the events and the ideas represented in those images were the collective property of the Greek community.

The paintings, statues and buildings were created by Greeks and for Greeks. Unity of some sort underlaid many later art collections, and there was, above all, the theme of the Christian religion that would transform a number of single pictures, sculptures, goldsmith-work, and illuminated manuscripts into an entity, and almost into another artistic creation comparable to orchestral music.

The problem of orchestration of single objects of art in a collection will occupy us later when dealing in general with manners of presentation of specimens in early collections.

REFERENCES AND NOTES

1. Compare Pausanias, op. cit. (p. 36, n. 9).
Curtius, E., *Olympia*, Berlin, 1852.
2. Friedlaender, op. cit. (p. 27, n. 3), vol. II, p. 271.
3. Cicero, *The Verrine Orations*, II, iv, 24, para. 54.
4. " . . . le piu eccellenti opere di lei (dell' uomo) . . . Scultura e Pintura contrafacendo il cielo, . . . l'acqua, la terra, le bestie . . ." Borghini, R., *El Riposo*, written in the sixteenth century, published in Milan in 1807. (The above quotation is taken from the Introduction).
As to Italian collectors of the Renaissance in general compare Burckhardt, op. cit. (p. 36, n. 7).
5. Burckhardt, op. cit. (p. 36, n. 7), p. 321.
6. Martinez, op. cit. (p. 22, n. 17).
7. Friedlaender, M., *Art and Connoisseurship*, London, 1942.
8. Scott, G., *The Architecture of Humanism*, London, 1924, p. 60.
9. Herondas, *The Mimiambs* (a Greek mime, written presumably in the third century B.C.), English translation by Lindsay, F., London, 1929.
10. Compare Murphy, op. cit. (p. 36, n. 17), and Harrison, J. E., *Ancient Art and Ritual*, Cambridge, 1913.
11. Plinius, op. cit. (p. 7, n. 10), Lib. XXXV, (10) 69.
12. Inventory of the Robertet collection, see *Gazette des Beaux Arts*, Paris, 1869.
13. " La pintura de Flandes satisfara generalmente a qualquier devoto más que ninguna de Italia, la cual nunca le hará llorar una sola lágrima, y la de Flandes muchas . . . (La Pintura) al melancolizado provoca a Alegria ; al contento al conocimiento de la miseria humana ; al obstinado mueve a compuncion. Al mundano a penitençia, al indevoto . . . a miedo y verguença. . . . Ella nos muestra los tormentos del Infierno ; nos representa la glória y paz de los bien aventurados. Represéntanos la modestia de sus Santos, la constancia de los martirios . . . el Amor . . .". Holanda, F., " Dialogos de la Pintura " (1548), *Fuentes Literarias para la Historia del Arte Español'*, ed. by Canton, S. F. J., Madrid, 1923.
14. Crowe and Cavalcaselle, *The Life and Times of Titian*, London, 1881, Appendix.
" Unveroeffentlichte Beitraege zur Geschichte der Kunstbestrebungen, Karl V. und Philip II." *Jahrbuch der kunsthistorischen Sammlungen in Wien* (new series), Vienna, 1933.
Compare Appendix, p. 225, a sixteenth-century account of a contemporary collection in Florence.

15. Gaye, G., *Carteggio inedito d'Artisti dei secoli XIV, XV, XVI*, Florence, 1839–40, vol. II, p. 179.

16. Morelli (The Anonimo), *Notes on pictures of art in Italy made by an anonymous writer in the sixteenth century*, translated by Mussi, P., edited by Williamson, G. C., London, 1903.

Volkmann, J. J., *Historisch-Kritische Nachrichten von Italien*, Leipzig, 1770, pp. 357–66.

17. " . . . de que sirven las historias de las guerras de . . . hechas in pinturas y tapizerias, sino . . . para . . . que viendolas se animen . . . otros a ganar nõbre y nobleza por caminos derechos, y no por . . . infames ? ", Rios, G. G., de los, *Noticia General para la Estimacion de las Artes*.

18. Kingsley, R., and Gronkowski, C., " The Dutuit Collection ", *Burlington Magazine*, London, May, 1903.

Section VII

The Presentation of Specimens

MANNERS AND MODES

A collection, or any set of objects, is characterized by two main factors : by the selection of the items and by their combined presentation. Some considerations which governed the selection of specimens in collections preceding the Public Museum have been brought forward in the chapters dealing with the functions of collections. Obviously, the specimens selected by the economic hoarder differ from those of the collector anxious to possess objects having magical powers, and the *desiderata* of the natural scientist differ from those of the amateur of art. A survey of collections reveals, however, that a clear-cut demarcation line cannot easily be drawn between the different kinds of collections, that in many cases a collection of art will by its mode of presentation hold elements of an economic hoard, and that a collection selected on principles of learned inquiry may, through the manner of its presentation, acquire boastful features peculiar to a social prestige collection. In other words, the combination of the mode of selection and the method of presentation may, or may not, be consistent, and this fact will to a considerable extent influence the character of the resulting collection. Since there are reasons to assume that part of the malady of the existing museum is caused by inconsistencies in the combination of principles of selection and presentation, it may be profitable to survey briefly some ways of presenting specimens which were used in collections preceding the Public Museum.

(*a*) *The Store-Room Style of Presentation*, such as may have been used in the treasure chamber of a wealthy personage in ancient Greece, in a mediæval cathedral, or in the " Guardaropa " of a *gentilhuomo* or a *gentildonna* of the early Renaissance, tended above all to satisfy the need for safely keeping the stored articles for eventual future use (Fig. 1). It was implied that whatever the character of the stored articles, whether ingots of gold or vessels of precious material, foodstuffs, reliquaries or images, they would be taken out of store and transferred to other rooms where they were to be used. Hence, the requirement firstly of

economy of space, secondly of a reasonable accessibility of the objects, and furthermore the lack of interest in any arrangement that as a whole would amount to a decorative display. Almost any principle of order would satisfy the store-room style of presentation, whether based on the difference of raw materials, or of purpose, on the chronology of date of inclusion of specimens into the store-room, or otherwise.

An inventory of the Emperor Charles V's collection in Spain stated that five pictures, three portraits of the empress and two representing the Last Judgement, were contained in a bag of mulberry-coloured silk, and that other pictures were kept in a similar silk bag, whereas a black leather box lined with scarlet velvet housed four Bezoar stones regarded as agents counteracting poison, a reliquary with a fragment of Christ's cross, a silver scent-sprinkler, two gold armbands and rings as a cure against hæmorrhoids, and a blue stone as a medicine against gout. In another casket were kept a crucifix, two scourges for self-flagellation, a number of golden tooth-picks and spectacles, and some mathematical instruments.[1] Philip II still had part of his numerous paintings in the palace at Madrid stored in the *Guarda-joyas* (treasure chamber) together with jewellery and vessels valued for their precious metal and destined to be taken out occasionally and set up in one of the apartments. The store-room style of presentation for a long time survived the era of economic hoarding. There are inventories of the Medici palace which tell of the wealth of objects accumulated by three generations of collectors in accordance to which rolled carpets were piled up in cases and precious vessels were packed under beds.[2] When the German traveller Volkmann visited in the eighteenth century the palazzo Giustianini in Rome he kept it in mind as " a place where statues are accumulated indiscriminately and rather in the manner of herrings tightly packed ". The select specimens of mediæval German arts and crafts which later became a part of the Bavarian National Museum in Munich were kept by their former owner, Herr von Reider, in his small private house in Bamberg where they filled all the rooms and attics and covered even the master's bedstead, from which they had to be removed at bed-time.[3]

An example of a gallery of paintings in the style of a store-room was the famous seventeenth-century collection of art of the Austrian Archduke Leopold Wilhelm Hapsburg, which was the subject of one of the pictures by the Dutch artist Teniers (Pl. XI). He portrayed the collector in the midst of his paintings which

covered the walls from floor to ceiling and even part of the floor. The manner in which the pictures followed each other in tightly packed rows suggests as the guiding principle concern for a maximum utilization of space, notwithstanding the fact that these rooms apparently served for the display of the works of art as well as for their safe keeping. From Teniers's painted record one would gather that on the table in the exhibition room were laid sketches of paintings, to be ordered from artists or considered for purchase, and that these were being discussed by the archduke with his courtiers or agents—further items to be added to the hoard. He, and probably numerous other collectors, in their delight in the quantity of the objects they had succeeded in accumulating and in their intimacy with each single item, may have been indifferent to the mode of arrangement.

Judging by a description of the French king's collection of paintings on the occasion of their transference from Fontainebleau to the Louvre in Paris, the arrangement resembled that of the archduke. The reporter of *Le Mercure Galant*, of December, 1681, wrote as follows :

> On Friday, 5th December, His Majesty came to Paris to visit his cabinet of paintings. Some of the rooms are more than fifty feet long. Those with the highest ceilings are adorned till the space above the cornices and the shutters are on both sides covered (with pictures). In eleven rooms there are sixteen Raphaels, ten Lionardos, twenty-three Titians. . . . The most precious ones are enshrined in painted cases and one may say that one painting covers another . . .

The French royal collections had been begun by Francis I and were greatly enlarged by Louis XIV and his minister Colbert, who acquired in ten years 647 paintings and thousands of drawings of excellent quality. They regarded them, in the spirit of mercantilists, as capital investment : as funds of artistic quality that would contribute to the raising of a new generation of indigenous artists and make France independent of import of objects of art from abroad.

As a further example of a collection presented in the manner of a hoard—in contrast to the principle of selection of specimens, which seems to have been influenced by the spirit of inquiry —there may be mentioned Emperor Rudolph II's collection in his castle in Prague. It was accommodated in four vaulted rooms and comprised natural and mechanical products, curios, jewels and works of art, all hoarded together so that the large objects were placed on tables and the small ones in the

drawers and on the shelves of thirty-seven cupboards. Paintings decorated the walls of all the apartments of the royal residence and were placed in stacks on the floors leaning against the walls where no space was available to hang them.

In his book on architecture, Scamozzi briefly described another seventeenth-century collection, that of Andrea Vendramin at Venice, another hoard, but one in which a certain effort was made to control the inchoate mass of articles. Scamozzi wrote : " . . . in two rooms there stood three rows of statues, reliefs, medals . . . and a hundred and forty large and small paintings of fine quality . . ." [4] The sub-division of the conglomeration into three parts, each more easily accessible and surveyable than the complete lot, did, however, not result in a presentation adequate to the character of the particular specimens. Articles of any kind may be regimented in rows, bags filled with foodstuffs as well as bars of metal. An arrangement that takes chiefly quantity into consideration does not seem to do justice to the complex nature of objects of art characterized by features other than sheer magnitude. In addition, the sequence " statues, vases, coins, paintings " suggests monotony within the single group and incoherence within the arrangement as a whole, two features that tend to blur the character of the single specimen and of the entire arrangement instead of articulating it. In such presentation features befitting a storage chamber appear imposed upon a selection of objects of art which for their full effectiveness require methods of display adequate to their properties of rhythm, proportion and historical associations.

In fact, a criticism of presenting incongruous specimens according to their size was raised in Major's book on contemporary collections.[5] The inadequacy of the " quantity " principle in arranging collections seems to be further revealed by a comparison with another collection of objects of art with which this principle was compatible. Next to the sanctuary of Zeus of Olympia at Athens was an enclosure, about four furlongs in length and width, which was crowded with portrait statues of the Emperor Hadrian who had dedicated the temple. Almost each Greek city had set up a statue and the two biggest, made of ivory and gold, had been donated by Athens.[6] Obviously, the cities had vied with each other in the donations and Athens had secured the privilege of having presented the two biggest (and most precious) statues. Hence, in this case the size appears to have been a legitimate principle of measure and relation.

Another kind of " storage-collection ", and one well suited for the special purposes of a student-collector, may be well illustrated by the private museum of Sir Hans Sloane, which eventually was to become the nucleus of the British Museum. There, to a great extent, the specimens were kept in cases and drawers and put on view temporarily only, when required for study and inspection [7] (Comp. Pls. VIII and XVa).

(*b*) *Presentation according to Facts of Matter.* An obvious manner of arranging objects is a classification according to raw material. This principle was propagated by its application in Pliny's *Natural History* and was the framework of numerous collections of the sixteenth and seventeenth centuries. The famous collection in the Green Vaults at Dresden founded in 1560 by the Elector Augustus of Saxony presented in seven rooms mechanical tools, precious vessels, pictures and treasure chests, mathematical instruments, mirrors, objects of nature, pictures of stone and metal and other materials. The specimens were arranged according to their material and set out on tables, valuable in themselves, on brackets and on boards placed across mirrors.[8] Aldrovandi, the well-known naturalist, author and collector of Bologna, classified artificial productions, tools, weapons, vases, etc., in accordance with the raw materials of which they were made. When dealing with a material, he would approach it both in its " natural " and its " manufactured " state (Pl. VIIa). In collections of objects of nature, the arrangement based on materials soon led to a presentation according to species and acquired elements of coherence and wholeness. The usual plan began with the skeleton of *homo sapiens* and went on to other animals, to plants and minerals, in more or less articulated subdivisions.[9] But when " Artificialia " were added to the " Naturalia " the presentation according to facts of matter seemed to lose its justification and almost its claim to pass for a meaningful arrangement. The *cose artifiziose* of the Museo Cospiano in Bologna, which formed a continuation of the sequence " man-animals-plants " contained " instruments (of mathematics, astronomy, geometry, music and war)—vases (arranged according to raw material)—ancient sarcophagi—medals—idols ". This sequence could have been reversed without effecting any definite change in the meaning of the arrangement as a whole. The arrangement was similar in the Mercati collection in Italy and in Ole Worm's collection in Denmark (Pl. VIIb). The specimens, natural and artificial, were set out as " earths, salts, clays, stone objects . . . metal, glass,

wood ". Worm kept his small specimens in boxes and in trays on the floor and on the bottom part of shelves, with minerals coming first and being followed by plants and animals. The top shelves housed a conglomeration of antiquities, objects of art, petrifactions, bones, stones and stuffed animals, and the walls over the shelves as well as on the ceiling were studded with skeletons, exotic costumes, weapons and stuffed animals among which excelled a crocodile.[10] Another later German collection. that of Dr. Valentini, was composed of " things sacred and superstitious ", " apparatus, philosophical, mathematical, anatomical, surgical and chemical ", " coins and medals ". The spectator was dismissed with the potential question whether those articles were supposed to represent a complete picture of man's products.

As late as 1762 J. D. Koehler in his book *Suggestions for Travelling Students*, advised collectors-to-be to be " systematic " and to sub-divide statues into " upright standing " and " seated " ones, into " nudes " and " clothed ". This prescription of a presentation in a superficial and misunderstood manner of " facts of matter " was still used as a guide book by Winckelman when he set out on his journeys.

(*c*) *The Kaleidoscopic Arrangement* may be suggested as a term covering numerous collections in which the very variety of specimens gathered together seems to have been the key-note of the presentation. Pater Kircher, who wrote a book under the title *De Omnibus Rebus and de quibusdam aliis*, applied the principle of " all things and some more " in his collection, where the most incongruous objects were placed alongside of each other. The table of contents of the Catalogue of the Musæum Kircherianum, by Philippus Bonani, published in Rome in 1709, announced a survey in three parts, each sub-divided into classes (Pl. IXa). There was the following sequence : Idola et Instrumenta ad Sacrificia—Anathemata—Sepulchra—Fragmenta Eruditae Antiquitatis (stilli, anulli, sigillae . . . numisma . . .) Lapides, Fossilia, aliasque glebas—Apparatum habet Rerum Peregrinarum (aves diversae . . . artefacta Turcarum, Persarum . . . Arma barbarorum . . . mumia)—Plantae Marinae, Animalia Marina . . . Terrestria—Instrumenta Mathematica—Tabulae pictae . . . Signa marmorea, Numismata . . . Animalia Testacea . . . etc.

To express his admiration of the royal collection in Denmark, Dr. W. Oliver wrote in the year 1702 : " . . . in one of the rooms is nothing but the garments, arms and utensils of Indians, Turks,

Greenlanders and other barbarous nations which for their number and variety entertain the eye with a very great pleasure." [11] " Varietas Delectat " was also a slogan of A. Olearius, the curator and commentator of the Gottorf collection (Pl. IXb).

(*d*) *The Learned Manner of Presentation* was advocated by A. Neickelius in his *Museographia* of 1727 where it was suggested that six shelves should be placed along the walls and should contain on one side Naturalia and on the other Artificialia (Fig. 6). The Naturalia should begin with human anatomy, i.e. skeletons and mummies, on the top shelf, and go on to quadrupeds, fishes and minerals. Among the Artificialia, ancient and modern things should be separated, and both the meaning and the form of a specimen should be taken into account when placing it. At the narrow short end of the room opposite the entrance, and lit by three windows, the cabinet for coins should be placed. The space available over the shelves should accommodate portraits of famous men, and the ceiling should provide opportunity to hang a few stuffed animals. While Neickelius wished to bring clarity into his arrangement, he nevertheless remained anxious to utilize all space available, as if the exhibition room had been a storage chamber. It seems noteworthy that he combined a library with the collection and suggested that a table with books for reference should stand in the centre of the exhibition. His aim, apparently, was learning of encyclopædic character embracing both sciences and arts. Similarly, the library was the focal point of the collections in the imperial residence at Vienna (Pl. XIIa). In the Theatrum Anatomicum at Leyden in Holland another place of learning, a collection of encyclopædic character was assembled, embracing both natural science and products of man which in present-day language would be termed archæological and ethnological (Fig. 5). In both these cases, however, the clarity required for study was dimmed by the overcrowding of the rooms with specimens. In Leyden the specimens grew to such numbers that beasts and birds were hanging round the anatomy theatre and cases and cupboards stood everywhere, even in the entrance hall.

Another example of a collection intimately connected with a library was that of Philip II in the " Golden Tower " of the royal residence at Madrid, which was destroyed in a fire in the eighteenth century. Gil Gonzalez Davila in his *Teatro de las Grandezas de Madrid*, and other contemporary authors, have described this attractive collection. There was on the ground

floor a semicircular room lined with cupboards enshrining architectural sketches for palaces and religious buildings, and copper-plate engravings illustrating the excavated remains of classical Rome. Here the King saw his artists, whose studios were in the old treasure chamber of the palace and were connected with the tower by a special corridor. Above this room was the library with books in Spanish, Italian and French on painting, architecture, archæology, geography and astronomy. On the top-floor was the gallery containing a series of Titian's pictures illustrating Ovid's *Metamorphoses*. Another room was reserved for Bosch's paintings.

The details involved in the attempts at systematization were numerous and their trends may be best indicated by a few instances. The Galleria Palatina in Rome represented a school of thought favouring an almost geometrical arrangement of paintings, which was apparently regarded as conducive to the study and enjoyment of pictures. In this gallery, as in many others of the *seicento*, all pictures were put into uniform frames and hung according to the rules of symmetry. Another view, represented by famous experts in museology,[12] was that at the entrance of the collection the visitor's eye should be caught by a few conspicuous specimens, such as a crocodile, a stuffed bear, tiger or lion, a dried whale, or some other objects that would impress people by their " splendour ", " venerable character " or " ferocious looks ". These admonitions were translated into practice. In the Theatrum Anatomicum in Leyden which, indeed, was a collection of educative character, the skeleton of an ass was presented with the figure of a woman who had murdered her daughter seated upon it.

It seems noteworthy that works of art were allotted only a modest place by the museologist of the sixteenth and seventeenth centuries, except in the collection specializing in paintings and sculpture. In connection with a " general collection " works of art were named last, as may be seen from the catalogue of the Museo Calceolari in Bologna, or they were appreciated for their informative value, as by Cospi, who took interest in ancient art mainly as an illustration of mythology. Both Neickelius and Major, who wrote about the general arrangement of collections, seemed to value paintings and sculpture as decorative accessories of collections of natural objects and curios or, again, as a means of picturing events or ideas. An arrangement of objects of art in keeping with the artistic qualities of the specimens existed in

the Medici collection in the Palazzo Pitti in Florence where statues were placed in the " Galleria " built for the purpose by Vasari, and some chosen paintings and bronzes in the *Tribuna* and the *Studiolo* which appear to have been parts of the Gallery [13] (Pl. X). Special rooms for collections of paintings existed in ancient Rome. Vitruvius wrote about the " Pinacotheca " as one of the apartments of a great house at the time of Augustus, and as architect gave directions as to the form and the aspect of this room (Pl. I).[14] The aim was apparently to create an impression of an harmonious whole, special regard being paid to the problem of lighting which was to fall on the objects from above and indirectly. The " Gallery " became an internationally favoured architectural form for the accommodation of paintings and sculpture, as may be seen from pictures of famous collections of the seventeenth century, for instance that of Cardinal Mazarin in Paris and that of the Earl of Arundel in London (Pls. XIII and IV).

The attempts at systematization sometimes approached the problem from the point of view of the contents of specimens. Charles Townley, the great English eighteenth-century collector of Greek and Roman antiquities (Pl. V), explained in a memorandum that the " symbolical values " and " the mystic system of emanations " of ancient works were to be the guiding principles in their arrangement. According to this the statues of the supreme triad Jupiter, Pluto, and Neptune, or any objects connected with these deities representing the powers of " generation ", " preservation " and " destruction ", were to be the central points of the presentation.

(*e*) *The Decorative Presentation* may be suggested as a term for arrangements in the manner of the Thesaurus Brandenburgicus in Berlin in the later part of the seventeenth century. For all the æsthetic and historic qualities of the specimens, the bronzes, coins, statues, paintings and curios, the striking characteristic of the collection was its decorative wholeness and its palatial atmosphere. On entering the large room, the visitor was more likely to associate his thought first with the might and wealth of the Brandenburg house which owned such splendour, and which was glorified in a painting covering the entire short end of the room, than to appreciate the exhibits for their own worth (Pl. XIIb).

A comparison suggests itself between collections of this style, combining intellectual interests with a drawing-room background, and lectures on Newton's theories given in the same period before audiences of titled personages. In spite of the light manner, or

the mannerisms, of the presentation and, possibly, of the attitude of mind of the audience—bent on entertainment rather than on enlightenment—part of the message would be transmitted and the result would contribute to a compromise between ruling absolutist dogmas and a newly rising unprejudiced spirit of inquiry.

As other instances of decorative presentation may be mentioned the imperial collection of paintings in Vienna at the time of its accommodation in the eighteenth century in the " Stallburg " where valuable pictures were cut to such shape as to fit into a decoration covering the entire walls, and further the Palazzo Colonna, which may stand as an instance of other baroque palaces, where the single painting and sculpture were but a feature of a general arrangement of spectacular luxury (Pls. XIV and XXIIIa). A decorative display of its own manner was the private museum of the Dutch scientist Ruysch where anatomical specimens were set against a background of flowers, shells and Latin verses (Pls. XVa and b).

(*f*) *The Performance as a Framework or Background of Presentation.* Any of the described collections displayed in a manner of decorative presentation were so in a twofold sense : they were decorative in themselves and as a part and background of festive gatherings arranged by their owners. A picture was preserved that shows Napoleon's wedding party in the newly opened gallery of paintings in the Louvre (Pl. XVIa). There, the exhibited pictures on the walls were not so much objects attracting the attention of the visitors as parts of a background fitting the decorative assembly. Centuries before, the Popes sometimes staged feasts in the attractive environment of the " Belvedere " in the Vatican where one of the court-yards housed some of the most beautiful ancient statues (Pl. XXII). On a much smaller scale but not less characteristic was the arrangement in some sixteenth-century collections in Northern Italy where the room containing musical instruments would at times be turned into a concert room and the room in which armour was kept would occasionally serve as a fencing ground.[15]

On some occasions works of art have played an even more active rôle in a performance. There were the ancestral masks worn by mourners in the funeral processions of distinguished men in ancient Rome ; the statues representing mythological figures in the processions staged by the Hellenistic rulers and in the displays at royal courts in the seventeenth century ; and the

statues that were, and still are, carried in the processions of the Roman Catholic Church.

Spain appears to have been an especially fertile ground for this type of presentation. When Charles I, as Prince of Wales, visited Spain in the spring of 1623, sculpture groups carried in processions formed part of the festivals staged in the guest's honour, together with theatrical plays, bull-fights and *Autos Sacramentales* (tragedies upon sacred subjects).[16] It began with a procession through the streets which stopped at certain places where the Autos were staged on movable cars. By the emotional tension of their facial expression and their gestures, the statues carried in these Spanish processions could attain extraordinary dramatic effect. Their colouring and the realism of their garments, which often were of cloth, enhanced the immediacy of their presence, and the play of light and sun, as well as the fact of motion implied in the marching procession, intensified the impression they made. Collections of such statues were stored in the repositories of churches and monasteries, awaiting the day when they would be required to play their part.

Different in their content, yet in their dramatic character similar to the religious statues, were the allegorical figures in contemporary performances staged at all courts of Europe, and much favoured in Spain. A festival at the royal palace of Madrid in June 1606 may illustrate the synchronization of statuary and live actors on such occasions. A "Temple of Good Fortune" (Templo de Felicidad), made of imitation porphyry and alabaster, enshrined a figure of "Fama" with all the pertinent trophies, and four young ladies-in-waiting ("meninas") personified the virtues of the ruling King Philip IV, his justice, generosity, constancy and prudence. There was a dance of "Roman Heroes", a miniature triumphal car in which the five-year-old Infanta Anna sat in the midst of fruits from the American Indies and feathers from Africa, and at dinner dishes were served in the shape of fortresses, ships, animals and birds. Paintings by the contemporary artist Carducho and Flemish wall hangings formed the decorative background of the proceedings.[17]

As another instance of images and live persons enacting the same imaginative experience there may be mentioned the collection of mythological paintings representing the Parnassus, Paris's Judgment, etc., in Cardinal Mazarin's famous collection of art, and the contemporary 'tableaux' staged by ladies of the French court in costumes represented in those pictures.[18]

On other occasions objects of art, statues and paintings did not form part of the actual performance, though they were closely related to it. In ancient Athens a festival was held once in four years in honour of the Goddess Athene in the temple of the Parthenon. Magistrates, musicians and sacrificial animals joined in the procession, and a deputation of the women of Athens carried a garment they had woven for the Goddess who symbolized the divine qualities of the people of Athens, beauty and decency, discipline and liberty. Reliefs on the frieze round the temple commemorated the procession and kept its memory alive during the years between the festivals. In a similar manner a collection of works of art distributed throughout the festival town Olympia mirrored periodical local events, as did paintings and statues in the mediæval Church which formed the background of plays staged at Christmas and Easter in celebration of the Lord's birth and resurrection.[19]

In other cases again image and performance—be it a staged play or happenings of reality—were not synchronized in a single event but connected merely by a common ideology, or, in an even less articulate manner, by a common spiritual atmosphere. The so-called " club " or " place for talk " (" lesche ") in Delphi had as background mural paintings by Polygnotus which represented the Greeks setting sail for Ilium and the capture of the town, and other great events of the past. Pausanias wrote about this club : " . . . here they used of old to meet and talk over both mythological and more serious subjects."

At the time of the Netherlands' struggle for liberation from the rule of the Spanish Hapsburg, in the late sixteenth and the seventeenth centuries, a host of portraits and *genre*-paintings was created which mirrored existing reality : the vigorous Netherland peasant and citizen in his daily life. At the same time plays were staged in churches where " Rhetoricians " under the cloak of symbolic words and safeguarded by the respectability of the Church gave political speeches inciting their fellow-citizens to carry on the underground fight against the oppressing power.[20] Performance and images were two sets of impressions, but they were born of one spirit and must have been closely interwoven in people's minds.

A special manner of presenting specimens, objects of art and curios, was usual at the mediæval Church festivals of some German cathedrals, when the specimens hoarded in treasure chambers would be taken out and solemnly shown to the people. Descrip-

tions have been preserved which amount to brief catalogues.[21] These presentations of church treasures were known as " Heiligtuemer " (Sacred Things) and took place as a rule once in seven years. The specimens were presented in relays (in " Gaengen "). There were relics of saints and martyrs, partly enshrined in statues and busts and partly in coffins, garments of former kings, goldsmith-work, and curios of great variety. The appeal of these exhibitions to spectators must have been considerable, judging by the admonitions requesting visitors to behave in a restrained manner, lest those who pushed their way too near the exhibits might find themselves ejected.

REFERENCES AND NOTES

1. Gachard, M., *Retraite et Mort de Charles V au Monastère de Yuste*, Brussels, 1855.

The exhibition on days of feast of the relics of saints and other treasures owned by churches was referred to in connection with San Marco in Venice, one of the great treasure houses of Europe, by Sansovino F., in his book on Venice, op. cit. (p. 22, n. 15).

2. Volkmann, op. cit. (p. 79, n. 16), vol. II, p. 435.

3. Hefner-Alteneck, J. H., *Entstehung, Zweck und Einrichtung des Bayerischen Nationalmuseums in Muenchen*, Bamberg, 1890, pp. 10–11.

Compare the following reference to another "store-room" : " . . . then you come to a walk (in the garden) which brings you to two greenhouses, one of them full of greens . . . and the other full of statues, busto's, basso-relievo's urns, altars, cramm'd full and lying confusedly as if it was the shop of a statuary : which treasures I shall describe as well as I had time to observe them " ; A description of Easton-Neston in Northamptonshire, the Seat of the Rt. Hon. the Earl of Pomfret, in B. Fairfax's *Catalogue of the curious collection of Pictures of George Villiers, Duke of Buckingham . . . and of some other collections*, London, 1758, p. 56.

Compare Appendix, p. 277, a seventeenth-century account of the imperial collection in Vienna.

4. " . . . due stanze . . . dove con triplicate ordine se ritrovano, non poche statue . . . bassi relievi, e vasi . . . e buon numero di Medaglie antiche . . . e forsi 140 quadri grandi e piccioli di buone pitture ", Scamozzi, F., *L'Idea della Architectura Universale*, Venetiis, 1615, vol. I, p. 305.

5. Major, D. B., *Bedencken von Kunst-und Naturalienkammern*, Kiel, 1674 (reprinted in Valentinis's *Museum Museorum*, p. 17, 1).

6. Pausanias, op. cit. (p. 36, n. 9), I, 18, 6.

7. Compare Appendix, p. 232, an account of the visit in 1748 of the Prince of Wales to the collection of Sir Hans Sloane. It is of interest to learn that in this great, if not greatest collection of a scholar-connoisseur in England, which eventually became the nucleus of the British Museum, specimens were stored in cases and drawers and were put on show only when required for inspection and study ; one set of objects was exhibited and then put away to make room for another.

8. Graesse, J. G. T., *A Descriptive Catalogue of the Green Vaults*, Dresden, 1874. There was a Cabinet of Bronzes, a Cabinet of Ivories, a Silver-room, etc.

9. The table of contents of the catalogue of the Museo Cospiani in Bologna, which comprised the Aldrovandi collection and which was published in 1677, commenced with the following enumeration : " De Corpi Humani Conditi, i delle varie sorti di Mumia . . . De gli Animali . . . Delle Piante . . ."

10. *Museum Wormianum*, Batavia, 1655.

11. *Philosophical Transactions*, London, 1702–3, quoted by Murray, op. cit. (p. 39 n. 5), vol. I, pp. 103–4.

12. Major, D. B., quoted by Klemm, G. F., *Geschichte der Sammlungen fuer Wissenschaft und Kunst in Deutschland*, Zerbst, 1837, p. 153.

Quichelberg, S., *Theatrum Sapientiae*, Paris, 1598.

13. Compare Appendix, pp. 229, 230, extracts from accounts of the Medici collection which were written in the sixteenth and the seventeenth century.

14. Vitruvius, op. cit. (p. 7, n. 10), pp. 14, 228, 236.

15. In his *Autobiography* Cellini referred to the musical performance in the Belvedere in which he played the " Soprano with his cornet ". He wrote : " During eight days before the festival (The Ferragosto) we practised . . . then on the first of August we went to the *Belvedere*, and while Pope Clement was at table we played those carefully studied motets so well that his Holiness protested he had never heard music more sweetly executed . . ." op. cit. (p. 43, n. 9), vol. I, p. 62.

Burckhardt, op. cit. (p. 36, n. 7), pp. 476–7.

16. Justi, C., op. cit. (p. 22, n. 16), vol. II, pp. 301 sq.

17. Villena, A., op. cit. (p. 68, n. 19), pp. 64 sq.

18. Bibliothèque Nationale, *Catalogue d'Exposition*, Paris, 1927.

Vallery-Radot, T., " La Galerie Mazarine, etc.," *Gazette des Beaux Arts*, Paris, 1927.

19. Compare the rôle of images, and their relationship to performances, in Ancient Greece and in present-day communities of primitive material culture, where the images appear to be static (" frozen ") versions of the dynamic performance. Compare Harrison, J. E., op. cit. (p. 78, n. 10), and Murphy, J., op. cit. (p. 36, n. 17) pp. 65–8.

20. Floerke, H., op. cit. (p. 36, n. 19), pp. 26–7.

21. One such exhibition, at Bamberg in 1493, was described in a pamphlet entitled *Die Aufzuruffunge des hochwirdigen Heiligthums des Loeblichen Stifts zu Bamberg*. Another similar exhibition was performed in Wittenberg in 1509 and was announced in a pamphlet as *Die Zaigung des hochlobwuerdigen Heiligtums der Stiftskirche zu Wittenberg*.

Section VIII

Ways and Means of Acquiring Specimens

Since ways of acquiring specimens constitute an important problem in the existing museums, methods of acquisition which were in use in the past should be briefly reviewed. They may shed additional light on the character of the forerunners of our museums, if not also on some of its extant features.

In contrast with the museum of our times, the collections of former centuries were to a large degree furnished with contemporary specimens, notwithstanding the value attributed under certain circumstances to the antiquity of an object. In ancient Greece as well as in the Middle Ages, and probably up to the dawn of the nineteenth century, the work of the living artist was regarded as second to none. The esteem in which ancient statuary was held in the Renaissance did not damp the enthusiasm for contemporary creation. The personal relationship that often connected patron and artist seems noteworthy. Princes installed in their castles studios for artists, visited them and watched them at their work. They discussed the contents of pictures to be painted and even the style of presentation, and corresponded with artists on such subjects.[1]

An element of personal contact was also inherent in the acquisition of specimens by way of gift or exchange between individual collectors, such as for example often occurred in the circle of the Spanish *Aficionados* (" Connoisseurs ") of the seventeenth century. When Charles I, as Prince of Wales, in 1623 visited Spain and his intended bride, the Infanta Maria, he attended gatherings of the " Aficionados ". On the occasion of his visit to the house of Don Geronimo Fures y Muños, whose cabinet was noted for drawings and paintings by Italian masters, he accepted a gift of several pictures and weapons. Some of the fine paintings offered to him by his royal host and prospective brother-in-law, Philip IV, were unpacked and remained in Spain when the plan of the marriage was given up. Among them were Titian's " Danae " and " Europa ". Other royal gifts were taken home by Charles, for example Titian's " Antiope " which in the public auction following his decapitation was sold to the French banker Jabach for £6,000, and Gian

Bologna's bronze group of " Cain and Abel ", which had come to Spain as a gift from the Grand Duke of Florence to the Spanish King's minister Lerma, and which later adorned the Duke of Buckingham's garden near York House.[2] One of the great scholar-collectors of the seventeenth century, Fabri de Peiresc of Aix, in France, took delight in presenting other students and collectors with antiquities and specimens of nature, as well as with books, which were likely to further their special interests.[3] His unselfish passion for learning made him offer his Egyptian antiquities to Pater Kircher. One of the agents he sent out on the search for antiquities and curiosities drew the great lot of unearthing in Asia Minor the Greek marbles which later became known and famous as " Arundel Marbles ".

Less unselfish reasons motivated the presents made by Italian princes to the sovereigns of the Hapsburg and Valois dynasties. The Gonzaga, Este, Medici and others vied for the favours of the French King and the Spanish-Austrian Emperor, Charles V. When the Emperor, in 1529, visited Bologna for the purpose of a conference with Pope Clement VIII, in which among other matters the claim of the Este to Modena and other territory was discussed, the Duke received a letter from one of his agents after negotiations of the latter with the Emperor's adviser in Italy, Francisco de los Cobos.[4] A passage in this letter ran as follows : " . . . I implore your Highness to present him with the most beautiful ones (paintings)." Soon after, a letter from Cobos to the Duke's agent arrived amounting to strict orders. He wrote : " Under all circumstances I must get this picture." The coveted picture was a portrait of the Duke of Este by Titian, and indeed a few weeks later the painting decorated the Emperor's studio. It was not merely the loss of a much-valued painting that pained the Duke, but anxiety that the gift might call forth the Pope's displeasure. " What would the Pope say if he knew —(of the Duke's portrait being in the Emperor's personal rooms) ", asked Casella, on the Duke's behalf. Cobos knew his answer : " It would certainly anger him to think that His Majesty carries in his heart the image of the Duke as his loyal servant." From the Duke of Mantua, Charles V received Corregio's " Danae and the Shower of Gold ", " Leda and the Swan " and "Jupiter and Io ". When the Emperor came to Mantua, in 1532, the Gonzaga staged a series of entertainments and opened to the illustrious guest their " guardaropa " containing a precious collection of armour and paintings. Charles's

Section VIII

Ways and Means of Acquiring Specimens

Since ways of acquiring specimens constitute an important problem in the existing museums, methods of acquisition which were in use in the past should be briefly reviewed. They may shed additional light on the character of the forerunners of our museums, if not also on some of its extant features.

In contrast with the museum of our times, the collections of former centuries were to a large degree furnished with contemporary specimens, notwithstanding the value attributed under certain circumstances to the antiquity of an object. In ancient Greece as well as in the Middle Ages, and probably up to the dawn of the nineteenth century, the work of the living artist was regarded as second to none. The esteem in which ancient statuary was held in the Renaissance did not damp the enthusiasm for contemporary creation. The personal relationship that often connected patron and artist seems noteworthy. Princes installed in their castles studios for artists, visited them and watched them at their work. They discussed the contents of pictures to be painted and even the style of presentation, and corresponded with artists on such subjects.[1]

An element of personal contact was also inherent in the acquisition of specimens by way of gift or exchange between individual collectors, such as for example often occurred in the circle of the Spanish *Aficionados* (" Connoisseurs ") of the seventeenth century. When Charles I, as Prince of Wales, in 1623 visited Spain and his intended bride, the Infanta Maria, he attended gatherings of the " Aficionados ". On the occasion of his visit to the house of Don Geronimo Fures y Muños, whose cabinet was noted for drawings and paintings by Italian masters, he accepted a gift of several pictures and weapons. Some of the fine paintings offered to him by his royal host and prospective brother-in-law, Philip IV, were unpacked and remained in Spain when the plan of the marriage was given up. Among them were Titian's " Danae " and " Europa ". Other royal gifts were taken home by Charles, for example Titian's " Antiope " which in the public auction following his decapitation was sold to the French banker Jabach for £6,000, and Gian

Bologna's bronze group of " Cain and Abel ", which had come to Spain as a gift from the Grand Duke of Florence to the Spanish King's minister Lerma, and which later adorned the Duke of Buckingham's garden near York House.[2] One of the great scholar-collectors of the seventeenth century, Fabri de Peiresc of Aix, in France, took delight in presenting other students and collectors with antiquities and specimens of nature, as well as with books, which were likely to further their special interests.[3] His unselfish passion for learning made him offer his Egyptian antiquities to Pater Kircher. One of the agents he sent out on the search for antiquities and curiosities drew the great lot of unearthing in Asia Minor the Greek marbles which later became known and famous as " Arundel Marbles ".

Less unselfish reasons motivated the presents made by Italian princes to the sovereigns of the Hapsburg and Valois dynasties. The Gonzaga, Este, Medici and others vied for the favours of the French King and the Spanish-Austrian Emperor, Charles V. When the Emperor, in 1529, visited Bologna for the purpose of a conference with Pope Clement VIII, in which among other matters the claim of the Este to Modena and other territory was discussed, the Duke received a letter from one of his agents after negotiations of the latter with the Emperor's adviser in Italy, Francisco de los Cobos.[4] A passage in this letter ran as follows : " . . . I implore your Highness to present him with the most beautiful ones (paintings)." Soon after, a letter from Cobos to the Duke's agent arrived amounting to strict orders. He wrote : " Under all circumstances I must get this picture." The coveted picture was a portrait of the Duke of Este by Titian, and indeed a few weeks later the painting decorated the Emperor's studio. It was not merely the loss of a much-valued painting that pained the Duke, but anxiety that the gift might call forth the Pope's displeasure. " What would the Pope say if he knew —(of the Duke's portrait being in the Emperor's personal rooms) ", asked Casella, on the Duke's behalf. Cobos knew his answer : " It would certainly anger him to think that His Majesty carries in his heart the image of the Duke as his loyal servant." From the Duke of Mantua, Charles V received Corregio's " Danae and the Shower of Gold ", " Leda and the Swan " and "Jupiter and Io ". When the Emperor came to Mantua, in 1532, the Gonzaga staged a series of entertainments and opened to the illustrious guest their " guardaropa " containing a precious collection of armour and paintings. Charles's

interest in Titian's portraits goes back to that visit. The arrival of a figure of Christ Crucified, by Benvenuto Cellini, a gift of Francesco de Medici, in Philip II's residence El Escorial in 1576 was a day of celebration. Later a Grand Duke of Florence intended to win French sympathies by presenting the French monarch with a small statue of Louis XIII on horseback, made of pure gold, but decided to direct the gift to Don Luis de Haro, the Spanish Ambassador, when a crisis between Florence and Genoa was darkening the horizon. Spain's weakened powers still cast a spell of authority over European affairs and the Grand Duke stressed his amiable gesture by begging from the Spanish ambassador, in exchange for the statue, a portrait of Philip IV, so as to enjoy the sight of the adored master's countenance as a substitute for the much missed conversation with him.

In a time of limited facilities for travel, ambassadors abroad acted as agents in acquiring specimens for their royal masters and fellow-countrymen. The Earl of Arundel, Charles I's emissary to the Continent in 1636, sent paintings home from Vienna, the Netherlands and other places. Sir Thomas Roe, Whitehall's envoy to the Porte, 1621–8, was not himself a collector but interested himself in Greek antiquities on behalf of the Earl of Arundel and the Duke of Buckingham.[5] He reported home that manuscripts were not available, but that antiquities in marble were unesteemed . . . and to be " procured (especially at Delphos) for the charge of digging and fetching ". Further, that " Mr. Petty (one of Sir Thomas's helpers) hath raked togither 200 peices, all broken, or few entyre. . . . " It was the ambassador's ambition to obtain sculptures from the Porta Aurea in Constantinople, but the Sultan's Treasurer first refused permission to take down the sculptures made fast to the walls with iron pins and then approached the ambassador with the unusual request for an " old booke of prophesy " ; " inferring that these statues were enchanted ", commented Sir Thomas. In 1801, a " Firman " (Government Permit) was obtained by the British representative in Constantinople allowing him to take away any pieces of stone with old inscriptions. In this manner the Earl of Elgin acquired the statuary from the Parthenon in Athens which is now one of the greatest treasures of the British Museum. His view that by carrying away the marbles he saved the legacy of ancient culture from destruction was not unfounded under the existing conditions of the Turkish administration which as a rule paid little attention to the Greek remains.

To a very considerable degree, however, the change of ownership of specimens appears to have been effected under the immediate influence of wars and revolutions which shook the foundations of social order, or in connection with such violent events, even if ultimately in the form of legal purchase.

The statement by Pliny that the Augustan age saw treasures of ancient Greece transferred to Rome covered a series of acquisitions by violent means of Greek antiquities by the Romans, in contradiction to Pausanias' reference, " Sulla's treatment of Athens was harsh and alien to the Roman character . . . but he committed yet another outrage at Alalcomenae by carrying off the very image of Athena ". Sulla was not alone in behaving in such manner, and Pausanias himself recorded that the emperor Nero " robbed in the sanctuary of Apollo at Delphi five hundred statues of gods and men ", and that when Corinth was taken by the Romans, the generals carried off the most valuable monuments of piety and art. To add another apology, Pausanias wrote : " It is known that Augustus was not the first one to carry off votive offerings and images of gods from her vanquished foes, but that he only followed a long-established precedent (of the Orient) " [6] (Fig. 7).

The international migrations of works of art in subsequent centuries in Europe marked the political and military events of the times. Philip IV of Spain, once he set his heart upon an object, almost equalled in violence the ill-famed Roman Verres.[7] The Spanish Viceroy at Naples gave order to arrest the Prior of the Dominican monastery who had denounced his abbot to Rome for having sold to Philip's agents pictures belonging to the monastery. To avoid sharing the prior's fate, Pater Clemente Stapoli from Palermo undertook personally the delivery to Madrid of paintings of his monastery. The Spanish monarch's viceroy at Naples, Montery, sent in 1633 to Madrid twelve cars filled with paintings, and the consignment of his successor Medina de las Torres, in 1638, surpassed the former both in the quantity and the quality of the objects of art and caused the Venetian poet Marco Boschini to comment in a poem upon the national misfortune. Further spoils were sent by the king's brother Infante Fernando, who set himself the task of collecting works of art.

Reference has already been made to the export of Italian objects of art to France by soldiers of Francis I. On a much larger scale French troops were instrumental in the acquisition of works of art during the Napoleonic wars throughout the

Tabellarische Uebersicht

aller von den Römern erbeuteten und abgeführten Statuen.

Kunstwerke, Statuen und Gemälde.	*Ort, wo sie erbeutet wurden.*	*Ort wohin sie abgeführt wurden.*	*Zeit in welcher dieses geschah.*	*Krieg in welchem die Abführung vorfiel.*	*Volk oder Männer durch die sie erbeutet wurden.*
1. *Juno regina.*	*Veji in Hetrurien.*	Rom.	J. d. W. 3558	Kr. g. d. Vejenter.	R. Furius Camillus.
2. *Zweitausend Statuen.*	*Bolsena in Hetrurien.*	R.	3620.	Kr. g. Hetrurien.	R. Postumius.
3. *Venus victrix.*	*Tuxium in Samnien.*	R.	3650.	Kr. g. d. Samniter.	R. Fabius Fabricianus.
4. *Jupiter Imperator.*	*Präneste.*	R.	3658.	Kr. g. d. Latiner.	R. T. Quintius Dict.
5. *Eine unbestimmte grosse Menge von Statuen.*	*Capua.*	R. Colleg. Pontif.	3664.	Kr. g. d. abgefallnen Städte Grosgriech.	R. Appius Claudius und Fulvius.
6. *Mars und eine unbestimmteMenge von Statuen.*	*Tarent.*	R.	3712.	Kr. g. d. abg. St. G. g.	R. Fabius Maximus.
7. *Hercules ein Coloss aus Gold.*	*Tarent.*	Rom Capitol.	3712.	Kr. g. d. abg. St. G. g.	R. Fabius Maximus.
8. *Jupiter Jmperator* oder *Urius.*	*Macedonien.*	Rom Capit.	J. n. R. Erbauung. 558.	Kr. g. Kö. Philipp v. Macedonien.	R. T. Q. Flaminius.
9. *Die neun Musen.*	*Ambracia.*	R. Temp. d. Hercules.	566.	Kr. g. Aet. und Cephallenien.	R. Fulvius Nobilior.
10. 285 *broncene u.* 230 *marmorne Statuen.*	*Ambracia u. ganz Epirus.*	Rom.	566.	Kr. g. Aetolien u. C.	R. Fulvius Nobil.
	Städte Klein-	R.	566.	Kr. g. d. K. Antioch.	R. L. Scipio.

FIG. 7.—A list of works of art abducted by the Romans from conquered territories. From Sickler's *Geschichte . . . der Abfuehrung vorzueglicher Kunstwerke* . . ., Gotha, 1803.

(European continent[8] (Fig. 2 and Pl. XVIb). When the French, in 1797, invaded Italy, contributions in the form of works of art were levied from the churches, monasteries and public galleries. In theory these contributions were to be confined to public property, but in fact all influential persons who had showed opposition to Bonaparte were despoiled of their ancient heirlooms. The Colonna, Borghese, Barberini, Chigi were forced to dispose of their pictures in order to prove that they had no other means of satisfying the invader's demands for money. The empress Josephine was among those who took personal advantage of the situation. The fine gallery of Cassel was one of the complete collections of art of which she took possession, keeping for herself a few selected objects and using the rest for presents and as objects for sale. When after the allied victory over Bonapartist France, the representatives of Hessen, among the numerous other claimants for the restoration of property, called at the palace of Malmaison, a residence of the former empress, they were informed that their pictures were in Russia. Czar Alexander, in his turn, declared he had purchased the paintings for a sum of 940,000 francs and considered himself to be their rightful owner.

A considerable part of the Bonapartist booty did not remain in the hands of the French, but after Napoleon's downfall was returned to their previous owners. Many valuable objects found their way to sales in England. In the year 1800, for instance, before the radical break-up of Bonapartist fortunes, there were offered for sale at Christie's in London several cases of marbles plundered from the Pope's palace by the French. An important buyer at this auction was Henry Blundell, one of the great English collectors of classic antiquities.

An excellent survey of the acquisition of works, both by violent and peaceful means, in the course of the Napoleonic wars is W. Buchanan's *Memoirs of Painting* (London, 1811). Mr. Buchanan was an art dealer of distinction who sent agents to different countries. His representative in Spain during the Peninsular War was G. Augustus Wallis, the artist, who wrote to Mr. Buchanan, between October, 1807, and January, 1808, as follows : " All seems to be fear and confusion . . . every payment here from the bankers is half paper and half money and the exchange not at all favourable. I lost 30% on some two days past . . . nothing but talk of French and Spanish armies and fleets arriving. He has given me high ideas of what is to be done in Spain, and that many old things are in the possession of the old families, and

are very little regarded." In August, 1808, Mr. Wallis wrote : "The times have been so dangerous to personal safety that I expected every minute to be destroyed. . . . In going to Loeches, twenty miles from Madrid, to see the famous pictures of Rubens . . . the people took me for a Frenchman, and with great difficulty I got off with my life." His exertions were at last, rewarded with the acquisition of six of the Rubens pictures.[9] In September, 1808, came another letter from Mr. Wallis : " . . . the Government of Spain had given orders for the disposal of the pictures of the Prince of Peace and of many others whom it considered as traitors to their country ; delays, however, occurred . . . and the French army again made its appearance in Madrid . . . General Murat . . . commandant of Madrid, had taken care to secure for his private cabinet some of the finest pictures. . . ." [10] Naturally, under such circumstances injury was done to fine works of art. A picture of the Madonna by Raphael has been known since then as "The Madonna cut to pieces" (La Vierge Coupée). The painting was cut at the order of Marshall Soult to facilitate its removal, and piece by piece was later shipped to England and sold in instalments.

The bulk of the booty, of specimens of art and of nature, from the conquered territories was destined for Napoleon's grandiose Musée du Louvre [11] and for the provincial museums in France in which the emperor took interest. When the Duke of Wellington pursued the French in the East of Spain, at Vittoria near Pamplona, Joseph Bonaparte was forced to take to flight and to forsake the spoils he was carrying with him in hundreds of carriages. One of the Duke's biographers wrote about this encounter : " . . . in the carriage of Joseph (Bonaparte) who escaped capture narrowly, we found Correggio's beautiful painting 'Christ in the Garden'."[12]

Revolutions may have been even more consequential in the world of collecting than wars. The sale of Charles I's collections of art on order of Parliament in 1653 drew collectors and their agents from many countries to London. Among the royal personages who sent representatives were Christine of Sweden, Catherine of Russia, Philip IV of Spain and the Austrian Archduke and Governor of the Netherlands, Leopold Wilhelm Hapsburg. Cardinal Mazarin was represented and the French Banker Jabach. The Memorandum-book of a certain R. Symmonds, a contemporary connoisseur, which is now in the possession of the British Museum, offers an account by an eye-witness.[13]

It tells of the Spanish ambassador's anxiety to secure objects for his master and of his acquisition for £2,000 of the famous " Sacra Familia " by Raphael, which originally had been painted for Federico Gonzaga and which later was enthusiastically acclaimed by Philip and named by him " La Perla ". He regarded it as the most exquisite object of his collections. In 1651 a shipload of the precious paintings was landed in Coruña and eighteen mules pulled the treasures from the coast up to the royal palace in Madrid. In the introduction to the catalogue of Charles I's collection, written by Vertue, and published years later, the following statement occurred : " . . . the stroke that laid Royalty so low . . . dispersed the royal virtuoso's collection. The first cabinets in Europe shine with its spoils . . . the best . . . are buried in the gloom, or perishing in the vaults of the Escurial." [14]

A few generations later the situation was changed. The French Revolution broke down social barriers and opened the doors to many palaces throughout the Continent. Buchanan in his *Memoirs of Painting* wrote : " . . . during the conflicting storms which ravaged the continent of Europe, Great Britain alone presented a bulwark to which foreign nations looked with awe and respect ; and although at war with her politically, they still confided in her honour and in her strength ; they transmitted their moneyed wealth to her public funds and their collections of art to private individuals, either for protection or to be disposed of for their use. . . . " The effect of the revolution and the Napoleonic wars on collecting in England was described by Mr. Buchanan as follows : " . . . this (collections from France, Italy and Spain) roused an emulation and a taste for the acquisition of works of art which had been almost dormant in England since the days of its illustrious patron and protector, Charles the First."[15]

Another artistic gain for England, in connection with the Napoleonic wars, were the Egyptian antiquities collected by the French army and obtained by the British navy and army when the French capitulated near Alexandria before Sir Ralph Abercrombie.

Further changes in the ownership of collections were caused by religious revolutions. Philip II prided himself on having rescued numerous images of religious character by having had them brought from the iconoclastic Netherlands to Spain. One of the objectives of Parker's (first) Society of Antiquaries in

England, in 1572, was to preserve ancient documents, and objects of archæology illustrative of history, which were menaced by destruction through the dissolution of religious houses. Art treasures which since the Middle Ages had been accumulated in the churches of Venice were first sequestrated by the Venetian Republic and in 1657 sold to defray expenses of the war against the Turks. The secularization of the ecclesiastic estates in the territories occupied by Napoleon became an opportunity for many lay collectors to make new acquisitions. The famous Bavarian art gallery in the Pinakothek in Munich was among the collections that profited from the secularization of clerical property in the vicinity.

The potential adventures that could befall a single work of art may be illustrated by two examples. Firstly, by the changes of ownership of the three Corregio pictures mentioned before. They were painted for Federigo II, Gonzaga, Duke of Mantua, and were later used by the Gonzaga to bribe the emperor Charles V into friendship. Charles's son, Philip II, used them again as presents, and gave " Danae and the Shower of Gold " and " Leda and the Swan " to the sculptor Leoni and "Jupiter and Io " to his minister, Antonio Perez. The three Correggios were united again when Emperor Rudolph II bought them for his residence in Prague, where they remained till Gustavus Adolphus of Sweden in 1631 captured Prague and among his spoils carried hundreds of paintings away to Sweden. There they remained packed in cases till Queen Christina, her father's successor, mentioned the pictures to her court painter Sebastian Bourdon while he was portraying her. Bourdon offered to examine the paintings but refused to accept them as a gift from the queen.[16] After Christina's abdication from the throne, the Correggios, among other works of art, accompanied her to Rome and were left as a legacy to her much-loved friend, the cardinal Azzolini. His heirs sold the pictures to Livio Odescalchi, a nephew of Pope Innocent XI, whose heirs in their turn sold them to the Orleans in Paris. Louis Orleans, who suffered from religious mania, was shocked by the nudity of Correggio's " Leda " and " Io " and mutilated them, but they were restored, and much valued by Philippe Egalité. When, however, in need of funds for his political and other adventures, Orleans sold his pictures by Italian and French masters to the banker Walkner at Brussels for the sum of £750,000. Making a gain of £150,000 in the deal, Walkner passed the collection on to M. Laborde de

Mereville, who wished the paintings to remain in France and had a gallery built next to his palace in the rue d'Artois in Paris, which was hardly finished when the revolution broke out. The paintings were shipped to England, where a syndicate with a capital of £43,000 was formed by the Duke of Bridgewater, Baron Carlisle and Baron Gower (later Marquess of Stafford). They selected for themselves the pictures they wished to possess and had the rest sold by the art dealer Bryan in the course of an exhibition for 41,000 guineas.[17]

A chalice, known as the Royal Gold Cup, which is now in the British Museum, landed in that repository after numerous migrations.[18] The fine goldsmith-work with enamelled decoration was produced in the fifteenth century and was once the property of Jean de Berry, Duke of Burgundy, who presented it to his nephew, King Charles VI of France. The Hundred Years War played the chalice into the hands of the Duke of Bedford, who in his turn deemed it worthy of serving as a present and gave it to his nephew and heir, Henry VI of England. It figured in the inventories of Henry VI and Henry VII, to be, in 1604, once more utilized as a token of sympathy, shown on that occasion by James I to the Duke of Frias, who acted as agent in peace negotiations between England and Spain. Frias handed the chalice on to the Spanish convent Las Huelgas where it first fell into oblivion and later disappeared. About 1880 the French art dealer M. Pichon acquired at a public sale a chalice which he regarded as good but modern work. He bought it for its metal value and sold it to England for 200,000 francs. In the meantime rumours of the deal had reached the Spanish convent which through the international intervention of the clergy succeeded in obtaining a part of the money paid to M. Pichon and in return declared as annulled the bull of excommunication against the unknown trespasser on their property.

In addition to all these unusual methods of acquisition, by means of gifts and of violence, specimens were at all times acquired by purchase. Ancient authors, Plutarch, Lucullus and others, wrote of the misery of people in subjugated Greece and Asia Minor where communities had to sell statues and other votive donations which they and their ancestors had once offered to their gods in temples. Art dealers had their shops in ancient Rome. Both Cha Duke of Burgundy, sent agents ects of art, the

LIBRARY
TNAU, Coimbatore - 3

one in the beginning, and the other towards the end of the Middle Ages.

The acquisition of ancient remains by travellers can be traced back to the fifteenth century, when the humanist Ciriaco of Ancona gathered inscriptions, statuary and coins on his journeys in Greece and the Near East.[19] The increase in building activities in Rome in the late fifteenth and sixteenth centuries caused the opening up of much ground (Pl. IIb). " When the cardinal Domenico Grimani entertained us in 1505 he showed a great number of statues of marble and many other ancient things which had all been unearthed in the *vigna* while the foundations for his palace were laid ", reported a contemporary author quoted by Burckhardt.[20] When, in 1506, the Laokoon was brought to light, again in the process of some building operations, the owner of the plot of land, a certain de' Freddi, drew considerable advantage from the incident. The Pope who acquired the statue appointed the man's son as a customs officer at the Porta San Giovanni, a post which was connected with a revenue of 600 ducats yearly ; after eleven years of such service the payment in return for the statue was converted into a salary of a scribe in the papal archives [21] (Comp. Pl. XVIb). The frequent occurrence of purchases of works of art by foreign buyers in Renaissance Italy seems evidenced by a pontifical order of 1534 prohibiting the export of works of art.[22]

About Charles I as a buyer of objects of art during his sojourn in Spain, the contemporary author Carducho wrote : " He was very anxious to collect all available paintings and was prepared to pay exaggerated sums of money for them " (" . . . precios excessivos."). Charles wished not only to acquire originals but, if these were unobtainable, accepted copies, and sometimes is supposed to have, by error, accepted copies instead of originals. After the death of Rubens his collections of paintings was offered for sale and a printed catalogue was sent to all the important collectors in Europe. Philip IV of Spain was anxious to be among the first bidders and received a letter from his brother, the Infante Fernando, who reported from the Netherlands : " Rubens left behind many and fine paintings. In order to satisfy His Majesty's wishes as best I can, I enclose a list of the pictures."[23] In fact, Philip acquired from the Rubens collection ten paintings by the master himself and twenty-two other pictures, for the total sum of 127,000 Gulder. Part of the Rubens collections went to the Duke of Buckingham.[24]

The traveller-collector was well represented in the sixteenth and seventeenth centuries, especially among students of natural history and medicine who, as mentioned before, accumulated a variety of archæological and ethnological material in addition to specimens of botany, zoology and mineralogy. On various occasions a collection of a traveller would be sold complete after his death or in his lifetime to another research student, or to a person of high rank. The Gottorf collection of the Duke of Schleswig-Holstein and Gottorf was originally the foundation of the Dutch physician Paludanus. The Thesaurus of the Brandenburg princes originated in a nucleus collection of curiosities acquired in Italy. Peter the Great of Russia, when visiting the West in 1698 and in 1716, seems to have regarded the acquisition of fine collections for Petersburg as one of the means of levelling up his country culturally. He acquired several famous collections in Amsterdam ; the natural history collection formed by A. Seba in his years of service with the Dutch East India Company, and from the anatomist Dr. Ruysch a collection of Naturalia and Artificialia ; further, Schynvoet's collection of coins.[25] The Elector Ferdinand August III of Saxony purchased from Francesco II of Modena the complete gallery of Modena which became a great asset to that of Dresden.

In the eighteenth century the art dealer was an established figure and his versatility was commented upon by Pope in the following verses : [26]

He buys for Topham drawings and designs,
For Fountain statues, for Pembroke coins,
Rare monkish manuscripts for Herne alone,
And books for Mead and rarities for Sloane.

REFERENCES AND NOTES

1. A letter written by Philip II of Spain to Titian.

"Amado nuestro vuestra carta de vij de Marҫo he recibido y visto por ella como teneis acabadas algunas pinturas que nos he mandado hazer de que he holgado mucho y os tengo en seruicio el cuydado y diligencia que en ello aueys usado. Bien quisiera que me huuierades scripto particularmente quales eran estas pinturas que teneis acabadas y pues el daño que recibio el Adonis se le hizo aqui quando lo descogieron para verle. Y agora las pinturas que me embiaredes estaran libres de correr este peligro yo os encargo mucho que luego en recibiendo esta embolnays muy bien las pinturas que tumieredes acabadas de manera que se puedan traer sin que reciban daño en el camino y las entregueys al Embaxador francisco de Vargas a quien yo scriuo y mando que con el primer correo que viniere si ser pudiere, o por la mejor via y manera

que le paresciere me las embie con la mayor breuedad que sea posible. Vos hareys de manera que por lo que se tumiere de hazer de vuestra parte no se difiera este que en ello me hareys mucho seruicio.

" De lo que toca a vuestras cosas me auisareys si se han complido porque a no hauesse hecho yo mandare scriuir al Duque Dalua de manera que se cumplan.

" De Brusselas a iiij° de Mayo de M.D.LVJ.

" Yo El Rey."

(The original letter is kept in the archives of Simanca and is filed as item Leg° 1498, f° 107, among the documents S^rla^ de Estado. Published by Crowe and Cavalcaselle, *Life and Times of Titian*, London, 1881, vol. II, p. 511.)

2. Justi, op. cit. (p. 22, n. 16).

3. Gassendi, P., *The Life of Peireskius*, translated into English by Rand, W., London, 1656, pp. 236–7, 258–9.

Neickelius, op. cit. (p. 68, n. 17), pp. 183, 185, 224.

4. Gronau, G., " Alfons d'Este und Tizian ", *Jahrbuch der Kunsthistorischen Sammlungen in Wien.* (New Series), Vienna, 1928.

A poetical reference to a present—Titian's Bacchanalia—made to Philip II of Spain by a Roman cardinal runs as follows :

E, mentre el gran Prelato è tuto intento
Per far ation eroica, e segnalata,
Pensa, repensa ; al fin resolve, e trata
De i Bacanali far quel Rè contento.

Boschini, M., *La Carta del Navegar* (*in l'alto Mar de la Pitura*) (an imaginary dialogue between a Venetian senator and a professor of art), Venice, 1660, p. 169.

5. Cust, L., " Notes on the collections formed by Thomas Howard, Earl of Arundel ", *Burlington Magazine*, 1911, August–November ; 1912, August.

Hervey, op. cit. (p. 7, n. 11), pp. 266–79.

The dangers to personal safety which the traveller-collector sometimes had to face may be illustrated by the experiences made by Mr. Petty, who acted as agent and buyer on behalf of the Earl of Arundel and the Duke of Buckingham. " Mr. Petty returning . . . from Samos, narrowly escaped with his life in a great storm, but lost all his curios and was imprisoned for a spy, but obtaining his liberty, pursued his researches."

Anecdotes of Painting in England, collected by Vertue, G., adjusted and published by Walpole, H., ed. by Dallaway, F. J., London, 1826, vol. II, p. 147.

6. The Elder Pliny's *Chapters on the History of Art*, translated by K. Jex Blake, London, 1896, Chapters 34–36, " De Artibus ".

Cicero, op. cit. p. 21.

Pausanias, op. cit. (p. 36, n. 9), Book IX, 33 ; Book X, 7 ; Book VIII, 46.

Voelkel, L., *Die Wegfuehrung von Kunstwerken aus eroberten Laendern nach Rom*, Leipzig, 1798.

Sickler, F. K. L., *Geschichte der Wegnahme und Abfuehrung vorzueglicher Kunstwerke aus den eroberten Laendern in die Laender der Siegers*, Gotha, 1803.

7. Palermo, F., *Narrazioni e Documenti sulla storia del regno di Napoli* . . . Naples, 1842.

Boschini, op. cit. above, pp. 170–1.

Arte en España, October, 1876.

Justi, op. cit. (p. 22, n. 16), p. 194.

8. Saunier, C., *Les Conquêtes Artistiques de la Revolution et de l'Empire. Reprises et Abandons des Allies en 1815*. Paris, 1902, comp. op. cit. (p. 28, n. 9).

Muentz, M. E., " Les annexions de collections d'art . . . et leurs rôle Fans les relations internationales, principalement pendant la Révolution Française ", *Revue d'Histoire Diplomatique*, Paris, 1894–6.

Ashmole, B., *A Catalogue of ancient marbles at Ince, Blundell Hall*, Oxford, 1929.

9. Later sold to the Earl of Grosvenor for £10,000.

10. Among them was Correggio's "Education of Cupid", which was later acquired by the Marquess of Londonderry.

11. Compare No. 8 above and op. cit. (p. 28, n. 9).

12. Wellington, E. K. G., *A description and historical catalogue of the collection of paintings and sculpture at Apsley House*, London, 1901.

The collection contains pictures which fell as booty to the Duke of Wellington in the course of a battle, at Vittoria, with Joseph Bonaparte on his retreat from Spain. After the Peninsular War the Duke wished to return to Spain the art treasures which by accident had come into his possession, but the King of Spain asked the Duke to keep the paintings in memory of the aid given to Spain by England. (In 1945 Apsley House together with its precious artistic contents was presented by the Wellington family to the English nation.)

13. Waagen, G. F., *Treasures of Art in Great Britain*, being an account of the chief collections of pictures, drawings, sculptures, etc., London, 1854, p. 13.

Egerton MS., No. 1636 of the collection of manuscripts, British Museum.

14. A Catalogue of King Charles I's Capital Collection of Pictures, Statues, Medals and other Curiosities, supposedly by Mr. Vanderdoort, keeper of the King's cabinet, was first published in London in 1758 from a manuscript, in the Ashmolean Museum, Oxford, transcribed for the Press by the late Mr. Vertue and later finished from his papers.

15. Buchanan, op. cit. (p. 101), pp. xiii, xiv.

16. Granberg, O., *Collection de Tableaux de Christine de Suede*, Stockholm, 1897.

17. The Flemish, Dutch and German paintings owned by Orleans were also sold in London, in 1792. Compare Gower, Lord R., *The Great Historic Galleries of England*, London, 1887.

18. *Cultura Española*, Madrid, 1907, vol. V. Comp. *British Museum*, "*A Guide to the Mediaeval Room*", 1907, p. 236, fig. 171.

19. Mehus, L., *Kyriaci Anconitani Itinerarium*, Florence, 1742.

20. Burckhardt, op cit. (p. 36, n. 7), p. 335.

21. The son of the farmer who dug out the Laokoon and sold the statue to the Pope received "militiam curialis officii lucrosam". A man from whom the Vatican acquired another valuable ancient statue, Ariadne, was granted exemption from tax payable for keeping sheep and goats for a period of four years, and derived from this privilege a benefit of about 700 gold skudi. Burckhardt, op. cit. (p. 36, n. 7), p. 336.

The famous Goldsmith Cellini as a young man stayed for some time in Rome, in the early sixteenth century, and in his *Autobiography* he described how he used to spend his leisure time. Plague was rampant and people died in great numbers. To overcome his fear of what was happening round him, the young artist sought relief in visiting the ancient buildings, copying them in wax and pencil, and shooting the pigeons housing in the ruins. "It (my gun) was also the cause of my making acquaintance with certain hunters after curiosities, who followed in the track of those Lombard peasants who used to come to Rome to till the vineyards at the proper season. While digging the ground they frequently turned up antique medals, agates, chrysophrases, cornelians and cameos; also some jewels. . . . The peasants used to sell things of this sort to the traders for a mere trifle; I very often, when I met them, paid the latter several times as many golden crowns as they had given giulios for some object . . . Independently of the profit I made by this traffic, which was at least tenfold, it brought me also into agreeable relations with nearly all the cardinals of Rome", op. cit. (p. 43, n. 9), vol. I, pp. 77–9.

22. Marini, op. cit. (p. 43, n. 10).

23. Justi, "*Miscellaneen*, etc.," op. cit. (p. 22, 16), vol. II, "Rubens und der Cardinal Infante Ferdinand".

To Velazquez' purchases on behalf of Philip IV in Rome reference was made by the Italian poet Boschini, op. cit. (p. 106, n. 4), p. 56.

L'ano mile sie cento e cinquant'un
Fù Don Diego Velasques gran sugeto
Del Catolico Rè Pitor perfeto,
In stà Cità ; no ghè dubio nissun
El fù mandà da quela gran Corona,
Per aquistar dei quadri a forza d'oro . . .

24. Hervey, op. cit. (p. 7, n. 11), p. 270.

25. *Conspectus Aedium Imperialis Academiæ Petropolitanae . . . bibliothecae et technophylacii* . . . Petropoli, 1744. (Description of the incorporation of Peter the Great's collections in the newly opened Academy of Science, with a few sketches giving an idea of the contents of the collections). Bacmeister, J., *Essai sur la Bibliothèque et le Cabinet de Curiositées d'Histoire Naturelle de L'Academie de Sciences de St. Petersburgh*, Petersburgh, 1776.

26. Pope, *Moral Essays*, Ep. IV, quoted by Murray, D., op. cit. (p. 39, n. 5), vol. I, p. 137.

The market value of objects of art varied not only from period to period but from one locality to another. "Drawings, paintings and sculpture . . . are twice as expensive in Warsaw as in France, Italy and Germany," wrote a traveller towards the end of the eighteenth century. (*Reise eines Livlaenders*, Berlin, 1795, vol. II, p. 108, quoted by Holst, "Sammlertum und Kunstwanderung in Ostdeutschland und den benachbarten Laendern bis 1800", *Jahrbuch der Preussischen Sammlungen*, Berlin, 1939.)

CHAPTER IV

THE PUBLIC MUSEUM

Section I

Origins of the Public Museum

A. FORERUNNERS OF THE PUBLIC MUSEUM

In his efforts at reform of domestic policy Julius Cæsar condemned hoarding by private individuals and himself set an example by dedicating his own collections to temples. His " Dactylotheca ", containing six collections of engraved stones, was consecrated to the temple of Venus Genetrix. No sooner, however, had Cæsar died, a victim of the civil war, than the objects distributed by him among the public institutions were again seized by private hoarder collector. " Spectari monumenta sua voluit ", was the reputation enjoyed by Asinius Pollio who in contrast to other collectors of ancient Rome wished his treasures to be appreciated by many people and not to be reserved for his own benefit. Another public-spirited collector of the Augustan era was General Agrippa who threw his collections open to the public and appealed to other collectors not to hide their treasures in the exile of their villas, on the grounds that the best of art should belong to the community, to the state, to everybody who can and wants to enjoy it.[1] His words remained unheeded and the collectors of Rome continued to regard the enjoyment of works of art and curios in their possession as their individual privilege.[2]

The great masses, both in ancient Greece and Rome, had access only to exhibits available in the temples and in the streets of their towns.[3] The situation remained unaltered in the Middle Ages and during the following centuries when, except for the few who owned private collections, people had no opportunity of seeing works of art and curios save in churches, where stress was inevitably laid on religious experience and respectful awe for the strange and rare rather than on unprejudiced observation of objects.

Though Lorenzo di Medici appears to have used the collection

of ancient marbles in his gardens mainly as a training ground for young artists, visitors were permitted to view the collections in the ducal palace as early as the sixteenth century.[4] In an informal manner artists employed by royal and other distinguished personages could at all times profit from the study of works of art available in the residences of their masters. The desire of collectors to obtain fine works of art by providing artists with opportunities for studying works of famous masters of the past was probably the motive which first unlocked the doors of private galleries and cabinets. Among the collectors who followed the example of the Medici was Charles Lennox, later Duke of Richmond, who after his return from a journey to Italy set up a collection of paintings, sculpture and casts in his gallery and garden at Whitehall and opened his house in 1758 as a gratuitous school of drawing for impecunious students.[5]

An appeal to collectors to make their treasures accessible to visitors so that people could benefit from acquaintance with rare and beautiful specimens without incurring the dangers of travel into distant lands was made by A. Olearius in his catalogue of the collection of the Duke of Schleswig-Holstein and Gottorf, in 1674. The suggestion seems to have met with little approval, judging by the limited access to collections in the seventeenth and eighteenth centuries. The famous Dutch anatomist Ruysch was known to admit to his collection royal personages, princes, ambassadors and generals,[6] and Mr. Townley in London opened the doors of his " Roman Villa " in Park Street, Westminster, to " men of taste " to whom he personally acted as guide (Pl. V). The Tradescant Museum in South Lambeth in London, regarded as the most extensive European collection about the middle of the seventeenth century was referred to in Flatman's contemporary *Poems and Songs* (1674, p. 89) in the verse, " Thus John Tradeskin starves our greedy eyes—By boxing up his new found rarities." When Mr. Ashmole, the Tradescants' heir, presented the collection to the University of Oxford and the " Ark of Lambeth " became the " Ashmolean Museum ", opened in 1683, the first Public Museum of Europe was formally created, but in fact it was, and was intended to be, a place of research and not an aid in general education.[7]

An awareness of the museum as a means of general education dawned with the increasing consciousness of the need for the improvement of existing educational standards. Between the late seventeenth and the early nineteenth centuries elementary educa-

tion became in western Europe first an opportunity slowly expanding in numbers of pupils and later law. Some of the great museums in the European capitals were founded in the second half of the eighteenth and in the early nineteenth centuries.[8] Yet though in theory " public ", these early museums for a considerable time were but a limited aid in the enlightenment of the masses.

REFERENCES AND NOTES

1. Plinius, op. cit. (p. 7 n. 10), Lib. XXXV, 4 (9).

2. Bonnaffé, op. cit. (p. 7, n. 10).

Furtwaengler, A., *Ueber Kunstsammlungen in alter und neuer Zeit*, Munich, 1877, p. 12.

3. Ampère, J. J., *L'Histoire Romaine* . . . Paris, 1862, vol. III, pp. 609–14.

Homo, L., " Les Musées de la Rome Imperiale ", *Gazette des Beaux Arts*, Paris, 1919.

4. " . . . perche grande è l'appetito nell' uomo di pascersi della vista di lavori prodotti da ingegni così nobili, così sublimi, dal Gran Duca è permesso a ministri, que anno cura di queste cose, che a chi vuol vederle siano cortesi ; onde come altrui pare attentamente le consideri." Bocchi, op. cit. (p. 8, n. 14), pp. 111–12.

" Teneva in quel tempo il Magnifico Lorenzo de' Medici nel suo Giardino in su la piazza di San Marco, Bertoldo Scultore : non tanto per custode o Guardiano di molte belle anticaglie che in quello aveva ragunate et raccolte con grande spesa : quanto perchè desiderando egli sommamente, di creare una scuola di pittori et di scultori eccellenti . . ." (Vasari *Vite*, ed. Ricci, Milan, 1930, vol. IV, p. 393).

5. Cust, L., op. cit. (p. 51, n. 14).

6. " His (Ruysch's) museum, indeed, both in the extent, variety and arrangement of its contents, became ultimately the most magnificent that any private individual ever accumulated, and was the resort of visitors of every description ; generals, ambassadors, princes, and even kings, were happy in the opportunity of examining it. The Czar Peter, in his journey through Holland in 1698, frequently dined at the frugal table of Ruysch, in order to spend whole days in his cabinet; and in 1717, on his return to Holland, the Czar purchased it of him for 30,000 florins, and sent it to Petersburg. The indefatigable anatomist immediately commenced the labour of supplying its place by a new collection." Chalmers, A., *General Biographical Dictionary* . . . an account of the lives and writings of the most eminent persons in every nation. Revised and enlarged ed., London, 1816, vol. XXVI, p. 505.

Ruysch was a Dutch anatomist (1638–1731) who gained fame by his method of preserving anatomical specimens by injecting them with special solutions (Fig. 25*b*).

7. Duncan, P. B. in his *Catalogue of the Ashmolean Museum*, Oxford, 1836, (pp. vi, vii), wrote with regard to the reconstruction of the museum in 1823 that the arrangement of specimens of natural history was according to the plan of Dr. Paley's *Natural Theology*, " . . . to induce a mental habit of associating the view of natural phenomena with the conviction that they are the media of Divine manifestation ". The opening of the Ashmolean Museum was described in the *Athenae Oxonienses*, vol. IV, p. 358, as follows : " . . . about 12 cart loads of rarities sent to Oxon by Mr. Ashmole . . . were first

of all publicly viewed on the 21st day of May (1683) by his royal highness duke of York . . . and on the 24th . . . by the doctors and masters of the University."

This museum, probably the earliest public museum of Europe, was part of the School of Natural History and was connected with a chemical laboratory accommodated in the storey below the collections. In the course of the development of the natural sciences in the nineteenth century the premises became insufficient for the housing of a scientific laboratory and the result was a separation of both the laboratory and the scientific collections from the archæological collections. The latter alone came to be known as The Ashmolean Museum in Beaumont Street. See : Taylor, T. Sherwood, " The Museum of the History of Science, Oxford ", *Endeavour*, April, 1942.

8. The opening dates of some of the main museums in Europe were as follows :

Ashmolean Museum, Oxford, 1683.
British Museum, London, 1759.
Belvedere, Vienna, 1781.
Louvre, Paris, 1793.
Prado, Madrid, 1819.
Altes Museum (Old Museum), Berlin, 1830.

P. Marshall Rea (" One Hundred and Fifty Years of Museum History ", *Science,* vol. LVII, 1923), named as the earliest American museums the museum in Charleston, South Carolina, founded in 1773, and the Peabody Museum at Salem, Massachusetts. The purpose of both these museums was the study of products of nature and their utilization in industry and commerce. The Pennsylvania Academy of Fine Arts in Philadelphia, founded in 1805, is regarded as the first American Art Museum. See Coleman, L. V., *The Museum in America,* Washington, 1939, pp. 679, sq.

B. ORIGINS OF SOME OF THE CHIEF EUROPEAN MUSEUMS

England. The foundation of the *British Museum* in London was connected with a passage in the Will of Sir Hans Sloane, the famous physician which ran as follows : " Whereas from my youth I have been a great observer and admirer of the wonderful power, wisdom, and contrivance of the Almighty God, appearing in the works of his creation, and have gathered together . . . books . . . natural and artificial curiosities . . . and the like . . . Now, desiring very much that these things, tending many ways . . . to the . . . use and improvement of the arts and sciences, and benefit of mankind, may remain together and not be separated, and that chiefly in and about the City of London, where they may, by the great confluence of people, be of most use . . ." [1] In such words Sir Hans requested his trustees to appeal to Parliament that his collection should be made a Public Museum, in return for a payment to his heirs of the sum of £20,000, which was one-fourth of the money he himself had spent on it. With the acceptance of the offer by an Act of Parliament in 1753 the British Museum was founded and, in January 1759, the nucleus collection was opened to the public.

Though it had been Sir Hans' wish that the museum should be of the greatest possible benefit to mankind, the British Museum was for some time not easily accessible. In 1785, after a visit to England, the German historian Wendeborn wrote, that persons desiring to view the British Museum had first to give their credentials at the office and that it was only after a period of about fourteen days that they were likely to receive a ticket of admission.[2] From the official " Rules and Acts " concerning the admission of " Strangers and Artists ", of 1808, it can be learned that the museum was kept open for public inspection every Monday, Tuesday, Wednesday and Thursday and that persons wishing to see the museum were to apply in the ante-room between eleven and twelve o'clock in the morning ; further, eight companies, of not more than fifteen persons each, were admitted in the course of one day. At each of these admissions the directing officer examined the visitors' credentials in the book serving this purpose and issued a ticket to every individual found to be " not exceptionable ". The person, who by now was an accepted visitor, was then put

in the care of one of the attendants. On Fridays select companies only were admitted, and on certain days the museum was reserved for students of the Royal Academy. Sometimes months passed before people who had applied for admission were informed that investigation into their credentials had been completed and that it was their turn to visit the museum. They were then at liberty to join one of the conducted groups which rapidly traversed the exhibition halls. Requests for information were frequently rebuffed by the guides, the labelling was scarce and the first synopsis of the contents of the British Museum which could serve as an aid to visitors, was printed in 1808.[3]

The principles of the interior arrangement of the British Museum in its early days and the style of the first building that housed it may be gathered from contemporary and later descriptions.[4] The building which first housed the collection, and which stood on the site of the present museum, was the former private residence of the Duke of Montague and had been built towards the end of the seventeenth century in the style of a French château by architects sent for the purpose to England by Louis XIV (Pls. XVIIa, XVIIb and XVIIIa). While one critic stressed that the " grand staircase had the magnificence becoming the residence of a nobleman . . . and the painted figures created a perspective that filled and satisfied the mind ", another found that the discordant styles of the French mural paintings, representing allegorical figures, landscapes and flowers, produced a garish splendour, and together with the heavy carved and gilt furniture resulted in a cumbrous magnificence.

A traveller visitor wrote towards the end of the eighteenth century : " The British Museum contains many valuable collections of natural history, but with the exception of some fishes in a small compartment, which are begun to be classed, nothing is in order, every thing is out of its place ; and this assemblage is rather an immense magazine, in which things have been thrown together at random, than a scientific collection . . ." [5]

An idea of the selection and presentation of specimens can be obtained from a little book entitled *A Visit to the British Museum*, of 1838, in which the author, Mr. Edwards, gave an account of his impressions for the benefit of his sons and nephews. He described the Entrance Hall with its statue of Shakespeare, the Indian Idols, the ornament from a Hindoo Temple and the skeleton of a hippopotamus ; the adjoining staircase which was decorated with paintings illustrating Ovid's *Metamorphoses* and

the picture of a llama, the South American beast of burden ; and the upper floor, which opened with a room of artificial curiosities and productions of uncivilized tribes and nations and was continued by another with skeletons of quadrupeds. The eighth room on the first floor housed models of ships, oriental bronzes, pottery and Roman antiquities, and other rooms were devoted to " animal creation " and various aspects of natural science. In the Gallery of Antiquities the objects were arranged according to their material, as " terra-cotta ", " marble ", " stucco ", " bronze ", etc. Mr. Edwards paid particular attention to the materials of objects of art and to their illustrative contents. An Egyptian sarcophagus would inspire him to a dissertation on granite and other minerals.

The Sloane Collection, in which artificial curiosities were a mere appendage to specimens of natural history,[6] had at the time of the first installation of the British Museum been enlarged by additional acquisitions, the Harleian Manuscripts, the Cotton Library and, later, Sir William Hamilton's Italian Collections.[7] The early nineteenth century brought an extraordinary influx. The year 1802 saw the arrival of the Egyptian collections made by French archæologists attached to Napoleon Bonaparte's army, and surrendered by the French to Sir Richard Abercrombie's victorious troops at Alexandria. The parliamentary grant of £16,000 for the extension of Montague House was hardly obtained when a new considerable addition to the collections arrived in the form of the classical antiquities from Mr. Townley's collection. Originally there were three departments—one of Manuscripts, Medals and Coins, another of Natural and Artificial Productions, and a third one of Printed Books. In 1808 the fourteen rooms in the old building were allotted in the following manner :

1. Ethnographical curiosities.
2. Harleian curiosities, mummies and ancient weapons.
3. Lansdowne collection, with models of works of art.
4. Manuscripts.
5–6. Portraits of famous men, English and Foreign.
7. Royal Library with portraits of English kings.
8. Banqueting-room.
9–14. Natural History.

In 1816 the Elgin marbles were acquired, and in 1823 King George III's Library. The congestion was to be relieved by the extension known as the quadrangle, but no sooner was this completed in 1838, than another extraordinary influx of

specimens led to another and worse congestion. The Assyrian antiquities brought by Layard and Rawlinson, and Sir Charles Newton's excavations from Halicarnassus, had to be stored in the basement, and the rooms over the King's Library which originally had been intended to house a collection of pictures were devoted to minerals and geological specimens.

While in England the nuclei of the main museums were collections of scientists and travellers, who had been guided to some degree in their collecting by a plan of research or by a certain set of ideas, the great museums of the Continent were in the majority transformations of former collections of kings and princes, which were the results of multifarious incidents in politics and of vagaries of human minds.[8]

REFERENCES AND NOTES

1. Quoted by Murray, op. cit. (p. 39, n. 5), vol. I, p. 139.

"About this time (1753) an act of parliament was passed for the purchase of the Museum or collection of Sir Hans Sloane (who died the 11th of January, 1753) and of the Harleian collection of manuscripts, and for providing one general repository for the better reception and more convenient use of the said collections . . . trustees were made a body corporate . . . upon this special trust and confidence 'that a free access to the said general repository . . . shall be given to all studious and curious persons, at such times and in such manner . . . as by the said trustees . . . shall be limited . . .' " (Chamberlain, H., *History and Survey of London*, London, 1770, p. 341).

2. Wendeborn, S. F. A., *Der Zustand des Staats, der Religion, der Gelehrsamkeit und der Kunst in Grossbritanien gegan das Ende des achtzehnten Jahrhunderts*, Berlin, 1785, II, p. 149.

Directions to such as apply for tickets to the British Museum, London, 1761.

3. *Acts and Votes of Parliament relating to the British Museum, Statutes and Rules, and Synopsis of the Contents* . . ., 1808.

The Frenchman L. Simond who visited the British Museum in 1810 wrote in his *Journal of a Tour and Residence in Great Britain* . . ., Edinburgh, 1815 : " We had no time allowed to examine anything ; our conductor pushed on without minding questions, or unable to answer them . . . " (vol. I, pp. 83–4).

These conditions remind one of customs in the treasure chamber of the abbey of St. Denis in France in the eighteenth century which were described by Valentini in his *Museum Museorum*, vol. II, p. 6. According to this description the doors of the cases holding the exhibits were opened only after the doors leading to the room had been carefully closed.

4. From *The Gentleman's Magazine*, London, May, 1814 : " *Montague House*, (British Museum) Great Russell Street, Bloomsbury. Built by John, first Duke of Montague, favourite of Charles II, twice Ambassador at the Court of Lewis XIV ; in disgrace with James II, honoured by William and Anne. Surveyed in May 1814.

" It appears that the Duke expended the greater part of his income in erecting this pile after the French taste, in which were engaged French architects, painters, &c., to design and embellish the same. . . . This house has more

the aspect of a palace for the abode of a prince than that of a subject. . . . Centrical staterooms ; the mass divided in two lines ; line towards the court, principal entrance cenrrical, to hall, grand stairs, and two state-rooms. Inferior entrances right and left to private stairs, rooms, &c. Line towards the garden, North, saloon centrical ; right and left, three state-rooms ; the whole several arrangements in communication one with other, giving that *coup d'œil* in perspective diminution, so characteristic of interiors of this date."

On the occasion of the opening in 1851 of several new rooms of the expanding new building of the British Museum, the commentator in *The Illustrated London News,* of 7th June, 1851, stated that " Montague House (the old building), of which the last remnant had disappeared in 1845, is among the things that were . . . the very model of ugliness and gloom . . ."

The General Contents of the British Museum, London, 1762 (2nd ed., printed for Dodsley, R. and J.).

Thomson, A., *Letters on the British Museum,* London, 1767.

A Visit to the British Museum, London, 1838.

Masson, D., *The British Museum, historical and descriptive,* Edinburgh, 1850. (publ. by Chambers, W. and R.).

The Microcosm of London, publ. by Ackermann, R., London, 1808, vol. I, pp. 101-6.

Londina Illustrata, publ. by Wilkinson, R., London, 1819.

Edwards, E., *Lives of the Founders of the British Museum,* London, 1870.

Kenyon, F. G., *The Buildings of the British Museum,* London, 1914.

5. Saint Fond, B. F., *Travels in England, Scotland,* . . . London, 1799, vol. I, pp. 85–90.

6. Compare an account of 1748 of the collections of Sir Hans Sloane, Appendix, p. 232.

7. The Royal Manuscripts were among the early accessions.

8. In addition to the Sloane and the Tradescant collections which became the British and the Ashmolean Museums, two Edinburgh collections may be mentioned which formed the basis of the Edinburgh Museum of Science and Art. These collections were begun in the late seventeenth century by the physicians Sir Andreas Balfour and Sir Robert Sibbald. In the eighteenth century further natural history specimens were added by Professors Walker and Jameson ; later, Gerard Baldwin Brown, the first Gordon Professor of Fine Art, provided objects of artistic and historical interest. First the collections formed a University Museum and were later transferred to the Museum of Science and Art, known since 1904 as Royal Scottish Museum.

In England, the famous collection of Charles I, which contained more than a thousand paintings by great masters and hundreds of ancient statues was, after the execution of the king, sold in public auction in the years 1650–3 and greatly contributed to the enlargement of famous private collections outside England.

Compare op. cit. (p. 107, n. 14) ; Hoff, H., *Charles I, Patron of Art,* London, 1942.

The merit of assembling this collection was mainly due to Charles I's personal interest in art, for his predecessors on the throne had done little as collectors. The German traveller P. Hentzner, who visited in 1598 the royal palaces at Whitehall, Windsor and Hampton Court, gave an account of the works of art which he had seen in these royal residences—a few portraits of English and foreign sovereigns, some battle-pieces and allegorical paintings. At the time of Henry VIII's death the royal collection numbered 150 pictures. Charles inherited a small collection, to which his brother Henry had added something, but it was left to him to develop it in a great style. His greatest acquisition *en bloc* was the purchase of the famous gallery of the Dukes of Mantua which contained a large number of paintings by Italian masters.

Hentzner, P., *A Journey into England. In the year 1598,* published in 1757, as a part of the *Itinerarium Germaniae, Galliae, Angliae . . .*, translated by R. Bentley and edited by H. Walpole in 1765.

An inventory of Henry VIII's furniture, pictures, sculpture, plate, glass, clocks, musical instruments, etc., is deposited in the British Museum, as Num. 1419 Harleian Manuscripts collection.

In 1761 The Dilettanti proposed to establish a collection of casts which would be "beneficial to the publick", but their plans did not materialize.

In 1768 the Royal Academy was founded, and its first exhibition was held in 1769 (Pl. XIX).

Compare Sandby, W., *The History of the Royal Academy of Arts,* London, 1862; Lamb, W. R. M., *The Royal Academy,* London, 1935.

France. The nucleus of the *Louvre* museum in Paris was Francis I's collection assembled in his Palace at Fontainebleau, known to the great public only from accounts and rumours about the "Merveilles de Fontainebleau".[1] The great enlargement of the royal collection and its transfer to the Louvre under Louis XIV was due to the influence of the King's minister Colbert, who wished to contribute to the training of contemporary artists by providing them with an opportunity of studying good pictures, and thus to further the interest of the country (Pl. XX). True to the spirit of mercantilism, Monsieur Colbert regarded a country's independence from foreign import as the most favourable economic solution, and it appears that as a staunch rationalist he ranked works of art among other goods.[2] Under his guidance the growth of the royal French collection was considerable. The sale of the royal English collection after Charles I's decapitation provided a great opportunity for European collectors in the years 1650–3. The French Crown acquired a number of works direct from London and others soon after as a part of the collection of the French banker Jabach. Hardly had he arrived back in Paris from London, where he had figured among the galaxy of European connoisseurs, than Jabach found himself in financial difficulties which forced him to part with several of his newly acquired paintings, with some Correggios among others, which originally had belonged to the Dukes of Mantua. This was the beginning of protracted negotiations with M. Colbert, acting as royal agent, which ended in the complete absorption of the Jabach collection in the Louvre. The minister and the banker were old friends, but where business was concerned M. Colbert did not allow sentiment to deflect his judgement. He proposed the purchase of a certain part of the collection only—the paintings and drawings—refused to consider the engraved stones, the jewels, busts

and many other valuables, suddenly postponed all discussion of the deal. In a letter to the minister written on the 10th March, 1671, Jabach cried : " . . . je Vous conjure du fond du cœur ! " As creditors became increasingly pressing, 108 paintings and 5,542 drawings were sent to the Louvre, in return for a comparatively small sum of money. At the end of his reign Louis XIV possessed 1,478 pictures by old masters of the French, Italian, German and Flemish schools, thousands of drawings and a fine collection of ancient Greek marbles and bronzes brought home by the ambassador in Constantinople, the Marquis de Nointel. The collections of Cardinal Mazarin and of the Abbé de Marolles were presented as gifts to the King.

It was not, however, the mere increase in the number of objects that characterized this period of the Louvre ; the collections began to form the background of intellectual and artistic activities. In 1692 L'Académie de Peinture et de Sculpture was installed in the palace and it was decided that the Salon de Séances should be used for an annual exhibition of paintings and sculpture. Though not regularly every year, exhibitions were held in the Salon, to be transferred in 1699 and in 1704, to the Grande Galerie in the Louvre. Louis XIV's later years on the throne brought a complete change in the policy concerning the royal collections ; they were transferred to the King's private residence at Versailles. It is of interest to note the reaction of the public to this transfer. It was regarded both as a deprivation for the French people and as a potential danger for the pictures. The demand for their return was not damped by the passing of several years and was voiced in a pamphlet written by an anonymous author, Lafont de St.-Yenne, and entitled *L'Ombre du Grand Colbert.*[3] In 1750 Louis XV decided to return 110 pictures to Paris, this time to the Palais Luxembourg. While since the early seventeenth century artists had been admitted for study at Fontainebleau, the Palais Luxembourg was opened to the public on two days of the week, while the other days were reserved for artists. Yet thirty-five years later the paintings were once again despatched to the King's residence at the Louvre. The plan of Count d'Angiviller, the director of the royal buildings, to collect the best specimens of painting and sculpture for the Grande Galerie in the Louvre was shelved, to be revived only in the summer of 1791 when the new Republican Government decided that a museum should be established at the Louvre. It was opened in 1793 and was accessible to the general public on three

days of one " decade "—ten days being the republican unit replacing the week. In addition to the paintings collected by French royalty and brought to France by Catherine of Medici and other royal brides, further works of art confiscated from churches during the revolution were added to the museum in the Louvre [4] (Pl. XXI).

A commission known as " Conservatoire du Muséum National " was put in charge of the arrangement of the Louvre as a public museum. Paintings were exhibited in the *Grand Salon* from 1796 till 1798, and in 1799 the *Grande Galerie* was reopened to the public, though the plans of reconstruction were upset by an ever-increasing influx of new specimens : the trophies of Napoleon Bonaparte's victories throughout Europe. Whenever the Grande Armée invaded another country, the Louvre had to prepare for another exhibition hall to be opened. Finally architectural renovations had to be considered to suit the new wealth of contents. On the anniversary of the battle of Jena, 14th October, 1807, the *Rotonde d'Apollon* was formally opened, and a guidebook was published entitled *Trophées d'Art conquis par la Grande Armée dans les Campagnes de 1806–7* (Fig. 2 and Pl. XVIb). Though the principles of order in the Musée Napoléon may not fully satisfy present-day museologists, the very effort to bring some order into the arrangement seems worthy of appreciation. Paintings were separated from sculpture, and both were arranged according to the nationality of the artists, and within this sequence alphabetically. The names of some of the rooms act as reminders of private collections of the past ; there was, for instance, a " Hall of Emperors " and a " Hall of Seasons " (Fig. 3).

The Musée Napoléon in the Louvre was one of the problems with which the Congress of Vienna in 1815 had to deal when the affairs of Europe, so badly unsettled by Napoleon's rise and fall, had to be re-ordered. The grandiose museum ceased to exist. A considerable quantity of objects which had been carried away by the Bonapartists from other countries were restored to their previous owners, where their origin was ascertainable.

After a brief period of inconspicuous existence collections in the Louvre began to grow once again. In 1827 the Egyptian collection, still a Napoleonic acquisition, was opened, to be followed by an Assyrian section. In 1837 Louis Philippe's collections of hundreds of Spanish paintings was made accessible. The revolution of 1848 caused the museum in the Louvre to be struck from the royal civil list and to become national property.

REFERENCES AND NOTES

1. Lemaitre, op. cit. (p. 22, n. 18).
Dan, op. cit. (p. 27, n. 5).
Evelyn, op. cit. (p. 21, n. 15).
Saunier, op. cit. (p. 106, n. 8).
Muentz, op. cit. (p. 106, n. 8).
Tuetey, A., and Guiffrey, J., *La Commission du Museum et la Création du Musée du Louvre, 1792–3*, Paris, 1910.
See Appendix, pp. 233, 234.

2. Similar views were expressed by contemporary statesmen and authoritative speakers in other countries.

In Austria, in 1725, Kaunitz, minister of state under the empress Maria Theresia, drew up rules for the Academy of Vienna which were to serve " the recognition of arts, the promotion of commerce and the improvement of taste of artisans ".

In Denmark, the minister-dictator Struensee wrote about the same time as follows : " L'Academie est utile a l'état et aux finances des Rois . . . elle forme des artistes . . . qui seront moins chers que les Étrangers. . . ."

In England, Mr. B. West in his presidential address to the Royal Academy in 1792 declared : " The instruction acquired in this place has spread itself through the various manufactures of the country."

3. Lafont de St.-Yenne, *L'Ombre du Grand Colbert,* Paris : " Vous vous souvenez sans doute, o grand ministre, de l'immense et précieuse collection de tableaux que vous engageâtes Louis XIV a faire élever a l'Italie et aux pays étrangers avec des frais considérables, pour meubler dignement ses palais. Vous pensez (Qui ne le penserait comme vous ?) que ces richesses sont exposées a l'admiration et a la joie des Français de posseder de si rares trésors, ou a la curiosité des étrangers, ou enfin a l'étude et a l'émulation de nôtre école ? Sachez, ô grand Colbert, que ces beaux ouvrages, n'ont pas revu la lumière et qu'ils ont passé, des places honorables qu'ils occupaient dans les cabinets de leurs possesseurs, à une obscure prison de Versailles, ou ils perissent depuis plus de cinquante ans."

4. Saunier, op. cit. above.
Muentz, op. cit. above.

" . . . Sauver de la fureur du vandalisme les monuments d'art, était assurement une chose louable. . . . C'est sur le lieu même ou un monument a été élevé, qu'il est beau, qu'il est utile de venir l'admirer. La République possède un complement auquel ne pourrait atteindre aucune nation. . . . La nation française, après avoir terrassé ses ennemis, doit encore les enchainer par l'admiration . . . de tributs volontaires. . . . Les Musées de France, excepté celui qui est au Louvre, sont tous des établissements imaginés depuis la révolution ; ils doivent leur existence aux spoliations des temples : . . . le vandalisme . . . sera dans tous les temps la honte de revolutionnaires. . . ."

These extracts are taken from a pamphlet published in the years when the Museum in the Louvre was established on an unprecedented scale and furnished with objects taken from the countries occupied by Napoleon's armies and from Catholic churches in France where the revolutionaries were still a leading power. (*Opinion sur les Musées—ou se trouvent retenus tous les objets d'art, qui sont la propriété des temples consacrés à la religion catholique,* par un Membre de l'ancienne Académie de Peinture et Sculpture). The author who severely criticized the confiscation of Church property found pardonable similarly violent means of appropriation outside the Church and in foreign countries.

As in matters of politics so in the lesser problems of the Musée du Louvre, Napoleon was anxious to gain British sympathy. It was considered a great

success when Mr. West, the President of the Royal Academy in London, accepted an invitation to Paris, and a poetical panegyric declaimed as an after-dinner speech at a meal in Mr. West's honour, was published, in 1802, by Lavallé.

Italy. The initiative in founding collections on a grand scale was taken in Italy by the popes. A brief account of one of the museums of Rome may contribute to this sketch of the early European museums.[1]

In the grounds of the *Vatican,* the papal residence which underwent great architectural changes in the Renaissance, a pavilion formerly erected by Innocent VIII appeared to Julius II as the proper setting for some of his fine ancient statuary. The little structure became known as the *Belvedere,* owing to the view it afforded over Rome, and was enlarged according to plans drawn by Bramante (Comp. Pl. XXII). It was connected with the main palace by a gallery and the courtyard was adorned with eight niches which were to hold statues. Other statuary stood among the orange trees and flower-beds round the central fountain. To some of the popes the tranquil remoteness of the *Cortile* with its orange tree's fragrance, the sound of the fountain waters and the beauty of ancient statues may have been a place of rest and refuge from affairs. Leo X opened the *Antiquario delle Statue* to the people of Rome. Twelve paths led to the cortile which was one of the great sights of Europe, housing as it did the unique Laokoon, with an Apollo statue and a few other marble figures of outstanding quality.

Pius V and Sixtus V in contrast with their predecessors were hostile to ancient relics, which may have seemed to them to be carriers of pagan magic forces. Apparently they wished to free themselves from some of the heathen statues in their residence, when they gave away a considerable number of ancient statues. Some were sent to the Capitol ; Emperor Maximilian II was presented with twelve busts of Roman emperors ; the Medici in Florence got their share in the form of twenty-six statues. Hearing of the busts presented to the Emperor, the Medici despatched an ambassador to the Vatican to inquire—or to request—their due in the "process of clearance" that was going on in the collections of his Holiness. Fortunately the fine statues in the Belvedere remained untouched, for the cortile had been closed to the public by Hadrian VI and the niches holding statues had been boarded up with roughly hewn doors. For almost two

hundred years they lay in obscurity, and remained known only through engravings and casts. When the English traveller Evelyn visited Rome in 1645 he found matters in this state. For some time the Antiquario in the Belvedere had been under the supervision of M. Mercati, physician to the pope and director of the botanical garden of the Vatican, and to the doctor the value of the statuary lay in its material, marble being a fine variety of stone.

Under Clement XIV the Antiquario woke to new life. The Cortile ceased to enshrine the fine statuary, which was bound to suffer from permanent exposure to the weather, and only some pieces of decorative sculpture and sarcophagi holding plants remained. The orange trees disappeared and statues of outstanding quality were assembled in a newly erected gallery. The *Museo Pio Clementino* was opened to the public in 1773, and was enlarged by succeeding popes (Fig. 8).

The ornate style characterizing the arrangement of art collections in princely houses seems to have guided the principle of presentation in this early museum. The walls were in sumptuous Pompeian red, which is too conspicuous and too light-absorbing to be a favourable background for sculpture or paintings. Further, the attention of the spectator was distracted from the plain white of the marble figures by columns of alabaster with gilt capitals and benches of porphyry. Since the desire for costly material appears to have been greater than the funds available, imitation alabaster in paint was found acceptable and was applied in a frieze.

Another feature in this early public museum was its limited accessibility. In his account of the Vatican collection the German traveller Volkmann wrote as follows :

> The famous statues and the new museum are now under the supervision of a guardian and it is most difficult to find him. Once he starts on a tour with a group of visitors he shuts the door of the museum and then one can lie in wait for hours, or it may happen that one has to give it up and leave the Vatican without having viewed anything. It is advisable to visit the Vatican in the company of a person familiar with the place, so that one gets access to all the interesting things therein.[2]

REFERENCES AND NOTES

1. Monti, G., *Descrizione di Roma antica e moderna*, Rome, 1755.

Schottmueller, F., " Entwicklung der Roemischen Museen ", *Museumskunde*, vol. IX, Berlin, 1909.

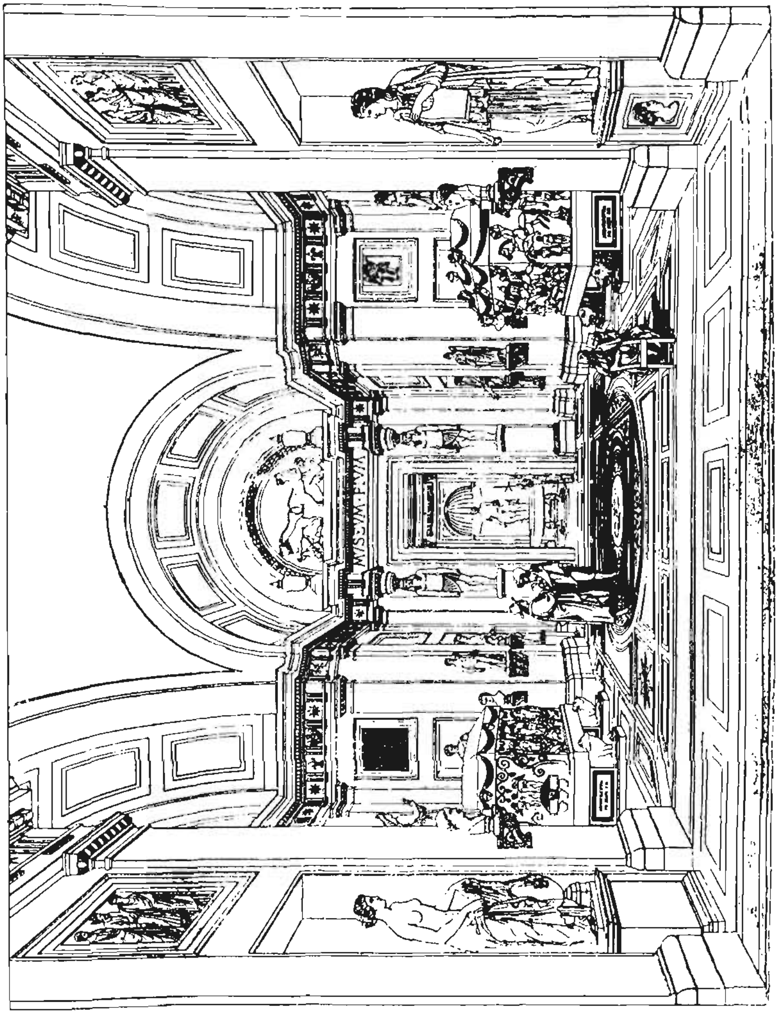


FIG. 8.—Hall in the form of a Greek Cross—in the *Museo Pio Clementino*, Vatican, Rome, 1780.
(From Letarouilly's *Le Vatican*, Paris, 1882.)

In 1755 the German antiquarian Winckelmann went to Rome and the result of his studies awakened the German-speaking world to a new awareness of ancient art. The collection in the Belvedere fascinated Winckelmann. " Die erste Arbeit an die ich mich in Rom machte, war, die Statuen im Belvedere als das Volkommenste der (bis auf uns gelangten) alten Bildhauerei zu beschreiben." (The description of the statues in the Belvedere was the first work which I undertook in Rome ; these statues are the most perfect ancient statuary, at least among the preserved objects.) Winckelmann, J., *Beschreibung des Torso im Belvedere zu Rom,* Saemtliche Werke (Coll. Works), Donauoeschingen, 1825, vol. I, p. 226.

Michaelis, op. cit. (p. 43, n. 6).

Volkmann, D. J. J., op. cit. (p. 79, n. 16).

2. " Da die beruehmten Statuen und das neue Museum Clementinum jetzt unter einem Aufseher stehen, so trifft man ihn sehr schwer an. Denn wenn er einmal mit Fremden im Museum ist, so schliesst er sich ein, und man kann ein paar Stunden lauern, bis er herauskommt, oder man muss gar wieder fortgehen ohne etwas zu sehen. Ueberhapt ist es gut, den Vatikan mit einem darum bekannten zu besuchen, damit man alles Merkwuerdige daselbst zu sehen bekommt." Volkmann, D. J. J., op. cit. above, vol. II, p. 136.

Spain. The *Prado* in Madrid also evolved from former royal collections. For some time young artists of promise (" de acreditada conducta y aplicacion ") as well as distinguished Spanish and foreign connoisseurs were granted permission to view paintings in royal palaces, badly hung and lit as they were. The advantage of putting a selection of fine paintings on view in one palace was suggested by writers on art in the eighteenth century, though they did not go as far as proposing that a special building in the sense of a museum should be chosen. The idea of a public museum began to be shaped under the successive Kings Charles III and Charles IV and gained in strength during the French invasion, with the Bonapartes propagating popular enlightenment as a means of propaganda for themselves.[1]

A royal decree of the 20th December, 1809, issued by the " intruder-king " Joseph Bonaparte, proclaimed : " There shall be founded in Madrid a Museum of Paintings which shall contain collections of the various schools, and for this purpose the pictures necessary shall be taken from all the public buildings and even from our palaces." Confiscations from suppressed religious houses and sequestrated private collections yielded further specimens of which, however, a part only remained in Spain. Many fine pictures were despatched to France or remained in the hands of French generals in Spain, some to be sold to England after the downfall of Napoleon. The graceful task of bringing the plans for the foundation of a museum to a conclusion and of opening the Prado was left to the legitimate Spanish King

Fernando VII. It was to be a " Gallery of paintings and sculpture for the teaching and profit of pupils and professors, as well as to satisfy the noble curiosity of natives and foreigners and give to Spain the glory that she so justly deserves ". It was a Public Museum, but the spirit in which it was created does not appear to have been truly " of the people and for the people ". Madrazo's illustrated catalogue of the early Prado, his *Colleccion lithographica de los cuadros del Rey de España*, Madrid, 1826, by its title already indicated that this museum was a private royal collection. The submissive devotion to a master who permitted ordinary men to view his inherited treasures was expressed in the odes adorning the catalogue. There it was stated :

> ? Que fuera' Ay triste' Sin tu dulce influjo,
> Gran Rey, ese edificio suntuoso
> que encierra el portentoso
> Caudal a Te debido.

The planlessness of the creation was well illustrated by the manner in which the choice of a building was made. First, the royal residence Buena Vista was to serve as a decorative shrine, but later it was decided to house the paintings in the Prado, a building which originally had been erected for the purpose of a Museum of Natural Science and which, of course, structurally was not particularly suitable for the accommodation of paintings (Pl. XXIIIb).

Contemporary critics lauded the building of the Prado for its " sumptuousness, wealth and ornaments ", its columns, cupola and the size of its rooms, some of which extended in length to 141 ft. and were 31 ft. high. The *majestuosa empresa* involved of course the expenditure of considerable sums of money. While problems of lighting and similar technicalities did not receive much attention in the early Prado, the moral dangers connected with the exhibition of paintings of nudes for some time constituted a major problem. In 1845 the English traveller Richard Ford wrote about " the peccant pictures " of the Prado which were kept in a reserved gallery so that visitors could hardly get access to some of the works by Titian and Rubens, in so far as these masters had created paintings considered as " lascivious and disquieting ". Foreigners desirous of visiting any part of the Prado had to produce their passports and even Spaniards were admitted first on one and later on two days of the week only, on Wednesdays and Saturdays, except on rainy days.[2]

REFERENCES AND NOTES

1. Madrazo, J. de, *Colleccion lithographica de los cuadros del Rey de España,* Madrid, 1826.

Madrazo, P. de, *Catálogo de los cuadros del museo del Prado de Madrid,* Madrid, 1855.

Haverty, M., *Wanderings in Spain,* London, 1844, vol. II, pp. 138–45.

Ris, C. de, *Le Musée Royal de Madrid,* Paris, 1859.

Gielly, L., *Le Prado,* Paris, 1939.

Harrison, H., *The Prado,* London, 1941.

2. "A curious practice which prevails at this, and some other museums of Madrid, is that of compelling the visitors to uncover their heads on entering. . . . At my first visit . . . I had my hat unceremoniously removed by one of the keepers who accompanied the action with some muttered insults." Haverty, op. cit., above, vol. II, p. 217.)

Austria. The first public museum was a legacy from royal collectors,[1] and an illustration of the international character of the Hapsburg Empire whose banners flew at some time over German, Slav, Hungarian, Italian, Spanish and Flemish territory. The works of art and curios amassed by several Hapsburg princes in Vienna, Prague, Innsbruck and Antwerp, and drawn from a wealth of talent in the Italian, Dutch and Spanish domains under Imperial rule, were united in the seventeenth century in Vienna by Emperor Ferdinand II. There were, in addition to more recent acquisitions, remains of the once famous Chamber of Treasures of the princes of Burgundy, with whom the Hapsburgs were related by marriage, and which excelled in goldsmith-work, jewels and curios.

Early in the eighteenth century it was decided to transfer a part of the imperial pictures from the residence in the " Burg " in Vienna to the *Stallburg* palace (Pl. XXIIIa), to relieve the store-rooms in the residence, but the Stallburg also proved too small for the display of all the available pictures. Another transfer was therefore decided upon, to the *Belvedere* palace where, in 1781, the public was given access to the hoard, a policy dictated by the period of enlightenment. The engraver C. von Mecheln, who was in charge of the new arrangement, laid stress on a systematic presentation, " educative " rather than " enjoyable ". He liked to compare a gallery with a library and had paintings hung in rigid rows and sculpture of small size packed into cases. His manner of arranging a gallery marked a definite progress from the " decorative " presentation in the Stallburg, if assessed by present-day standards. In fact, a contemporary writer on European museums, the Frenchman Viardot, who visited

museums in many European countries, expressed his appreciation of the arrangement in the Belvedere by stating that there was a division between pictures by northern and by southern artists, though within these sections works of all different periods were mixed. M. Viardot wrote : " Thank heaven . . . in the Belvedere the disorder is not as great (as in other galleries). One cannot say that the confusion is tantamount." His criticism gains in clarity if read in conjunction with his views on other museums of his time.

The benefit derived by the public from the Belvedere and other Viennese collections was for some time limited by the expense connected with a visit to those early museums. In the eighteenth-century Belvedere the curator received 12 Gulden from a group of visitors and a visit to the Imperial Treasure Chamber cost 25 Gulden. Conditions improved with the establishment in 1881 of the existing museums of art and natural science, known before 1918 as Imperial Museums and later as National Museums. Each transfer of objects, however, aroused vivid criticism. When the pictures were taken from the store-rooms in the imperial residence to be displayed in the Stallburg, objection was raised against a permanent display on the ground that it would do injury to the paintings. The increase in systematic presentation in the Belvedere made some people express their preference for a decorative style in a gallery.

REFERENCES AND NOTES

1. Stampart and Prenner, *Prodromus* . . . (preliminary catalogue of the imperial collections in the Stallburg), Vienna, 1735.

Wymetal, W., *Catalogue . . . du Belvedere*, Vienna, 1873.

Engerth, E. v., " Ueber die im kunsthistorischen Museum neu zur Aufstellung gelangenden Gemaelde ", *Jahrbuch der kunsthistorischen Sammlungen des allerhoechsten Kaiserhauses*, vol. I, Vienna, 1883.

Viardot, L., *Les Musées de l'Allemagne et de Russie*, Paris, 1844.

Tietze, H., *Die Zukunft der Wiener Museen*, Vienna, 1923.

Compare Bibliography, p. 54 n, 1.

Germany. In contrast to the majority of the museums which developed out of the adventure of a private collection or of the haphazard combination of several ones, the public museums of Berlin were from beginnings based on a plan.[1] There existed as in other capitals of Europe a royal treasure chamber, but the ' Thesaurus Brandenburgicus ' was not chosen as the main nucleus

of the public museum-to-be. The general situation of Prussia in the early nineteenth century may account for this special approach to the foundation. In the aftermath of the Napoleonic wars exaggerated national consciousness mingled in Germany with the classical idealism of the period of which the aged Goethe had been a representative, and in this atmosphere men like W. v. Humboldt, the statesman and scholar, desired that the growing generation of Germans should combine the best qualities of all Europeans and grow into " ideal world citizens ". The museum was regarded as one among other educative means of moulding the new type of German man. Hence the national museum was to be made to plan. It was to offer a survey of the evolution of the European mind. Whereas a collection that had grown slowly and according to the changing fancies of individual owners (such as, for instance, the Museum of Dresden, the former private gallery of the Princes of Saxony) would contain Italian paintings of the sixteenth and seventeenth centuries and little else, or Flemish and German schools only, the Museum of Berlin was to be a well-balanced selection of works of art representative of all periods and schools of Europe.

The first visitors admitted to a Prussian gallery, towards the end of the seventeenth century, were students of the academy of art who were granted the privilege of viewing the pictures in the royal residences. In 1797 Frederick Wilhelm II gave order that the best pictures in all royal residences should be assembled for the benefit of artists in the castle at Berlin. In 1810 an edict followed ordering the foundation of a Public Museum. In its preparation experts were sent to London and Paris to study collections and museums abroad,[2] and diplomats and travelling scholars received orders to purchase works of art in Italy. The *Altes Museum* in Berlin was one of the earliest museum buildings erected for its purpose. Already in 1797 plans for its construction were submitted to King Frederick Wilhelm II by A. Hirt, professor of ancient art in Berlin. In his memorandum Hirt advised that there should be neither long corridors and large halls nor unnecessary decoration, and he advocated the importance of good lighting. His plans, however, did not gain royal favour and were shelved. In spite of all planning, the carefully prepared " Old Museum " built by Schinkel, and opened in 1830, proved to be too small, and the novelty of some of the much-praised features of the interior arrangement appears, if viewed from the standpoint of the present, to have been

defeated by the weight of tradition which enmeshed efforts at reform.

Of greater originality was the earlier reconstruction, by Schlueter, of the old *Kunstkammer* in the royal palace in Berlin. It was intended to arrange each single room as an entity, in contrast with the kaleidoscopic incoherence of preceding private collections. Various means were used to create a wholeness of impression. There was a room with a harmonious framework of pilasters and mirrors ; in the cabinet of ancient statues the white colour of the walls repeated the whiteness of the marble statuary; in the exhibition of specimens of nature the allegorical frescoes on the ceiling contained shells and corals. The actual effect of the decorations, however, can hardly have been intentional as they distracted attention from the exhibits and created an atmosphere of decorative if not boastful character. It was in principle intended to facilitate access to the collections, yet the small objects kept in built-in cupboards were stored rather than exhibited. In order to be viewed they had to be taken out and shown to conducted groups. The accessibility was further reduced by the fact that only the room of coins, which served as the curator's office, was equipped with a stove, whereas in the remaining rooms no provision was made to protect visitors against the cold of the northern winter.[3]

REFERENCES AND NOTES

1. Ledebuhr, L. v., " Geschichte der Koeniglichen Kunstkammer in Berlin ", *Allgemeines Archiv fuer Geschichtskunde des Preussischen Staates*, vol. VI, Berlin, 1831.

" Zur Geschichte der Koeniglichen Museen zu Berlin ", *Festschrift zur Feier ihres fuenfzigjaehrigen Bestehens*, Berlin, 1880.

Waetzold, W., " Entwicklung der Berliner Museen ".

Stock, L., " Urkunden zur Vorgeschichte der Berliner Museen ".

Both essays were published in the *Jahrbuch der Preussischen Sammlungen*, Berlin, 1930.

Kuhn-Busse, L., " Der erste Entwurf fuer einen Berliner Museumsbau ", *Jahrbuch der Preussischen Kunstsammlungen*, Berlin, 1938.

2. Among them was Dr. v. Waagen whose visit to Britain resulted in his book on *The Art Treasures in Great Britain*, London, 1854.

3. For illustrations see *Jahrbuch* . . ., 1930, quoted above.

Russia. The nuclei of two main museums were formed by two rulers surnamed " the Great ", by Peter and Catherine.[1] Reference has been made before to Peter's acquisition of entire collections of objects of natural science, curios and coins, and

these were supplemented by some paintings by Flemish artists. Catherine collected paintings and sculpture only. Objects of art were to decorate the *Hermitage*, the small building connected with the Winter Palace in St. Petersburg, which in the fashion of the eighteenth century served the empress as a retreat. There she entertained her private friends or conferred with foreign diplomats, if the circumstances suggested delicate discretion of manner. The Hermitage was filled with paintings of great variety and the gallery connecting it with the Winter Palace was decorated with copies of Raphael's " Loges de Vatican ".

Distinguished people in Western Europe assisted the empress in her activities in collecting objects of art. In Paris Diderot gave advice ; in Italy Mengs, Angelica Kauffman and other artists watched for opportunities for the purchase of pictures and sculpture, and Reynolds was Catherine's English counsellor. With the aid of these distinguished helpers she succeeded in acquiring some famous European cabinets : the carefully selected collections of Crozat in Paris, Count de Bruehl in Dresden, Prince Guistiniani in Rome, Robert Walpole in England and Hope in Amsterdam. Thus the collection of the Hermitage came to contain about 1,700 pictures, the greater part by Italian and Flemish artists, with only a few Russian pictures.

When the French traveller and author Viardot visited Russia in the early nineteenth century he was struck by the chaotic manner of the arrangement of the Hermitage and wrote : " . . . ou l'on a compilé des tableaux et on se perd dans un labyrinthe." There was no principle of order, neither chronological nor geographical ; works of great quality were next to copies ; valuable pictures were hung opposite windows where they suffered from too much light and where they lost in visibility. In theory the public was admitted to view the imperial collection of paintings, but in practice only the few who possessed a dress-suit could view them, for anybody wishing to be allowed to enter the premises of the ruler's palace had to present himself in an outfit worn by visitors to court functions. Thus in those early times of its supposed service as a Public Museum the Hermitage remained what it had been since its origin—a means of testifying to the Russian rulers' might and wealth. The effect on visitors, who probably never before had seen a similar decorative hoard, must have been dazzling rather than enlightening.

REFERENCES AND NOTES

1. Schnitzler, J. H., *Notice sur les principaux tableaux du Musée Imperial de l'Ermitage a Saint-Petersburg*, Paris, 1828.

Viardot, L., op. cit. (p. 128, n. 1).

Weiner, P. P., *Meisterwerke der Gemaeldesammlung in der Eremitage in Petrograd.* Munich, 1923. (compare p. 108, n. 25).

Réau, L., and Loukomski, G., *Catherine La Grande, Inspiratrice d'art et Mécène,* Paris, 1930.

Only members of the privileged classes were granted admission to the Chamber of Rarities of Peter the Great, and they were offered coffee and wine, in addition to the sight of the accumulated treasures. (Holst, ' Sammlertum und Kunstwanderung in Ostdeutschland und den benachbarten Laendern', *Jahrbuch des Preussischen Sammlungen*, Berlin, 1939.)

C. *The Era of Enlightenment and its Public Museum*

Judging by criticisms expressed by some contemporary travellers and authors, the conditions described in the main museums must have been generally characteristic of public collections in Europe of the late eighteenth and early nineteenth centuries.

The German poet Herder rendered his memories of visits to museums in verses that in roughly rendered prose run as follows : " All is silence—Am I in this desert to meet you, beloved Rome ? —All those figures which once elsewhere I fondly greeted . . .— Here that fragment of a statue, there a bust, sacred limbs cruelly dismembered—all patched and stored in this lumber-room : in a museum ! Fear and misery are haunting me." [1]

In the introduction to the catalogue of his collection to be sold in public auction after his death, the French poet Edmond de Goncourt wrote : " It is my will that the objects of art which have contributed to my happiness should not be buried in the cold grave of a museum."

" It was not . . . in the eighteenth, nor yet in the earlier part of the nineteenth century that museums can be said to have taken any noteworthy part in the national life of any country. They began to be of service to scholars. . . . Artists as well as scholars began to profit. But for the general public museums were just collections of curiosities . . . with little guidance for the inexpert and no help to enable him to assimilate this mass of strange and unrelated material ", wrote Sir Frederic Kenyon in his essay *Museums and National Life.*[2]

There is sufficient evidence in the present-day situation to support and supplement the views of these authors on the early

museum. If viewed from a historical perspective, western European society had at a certain period, roughly between the middle of the eighteenth and the beginning of the nineteenth century, evolved a new phenomenon, the " Public Museum ", and the effort resulted in a failure, into the reasons of which it is our task to inquire.

The creation of the Public Museum was an expression of the eighteenth-century spirit of enlightenment which generated enthusiasm for equality of opportunity in learning. Collections which before had been sources of instruction and enjoyment for the few who owned the treasures and their personal friends, were to be made accessible to everybody. This was the theory from which the practice, however, came to differ widely. In practice the traditions of the former private collections were carried on in the public museums, notwithstanding the contrariety of purpose and of circumstances. In many cases, the early Public Museum became a magnified and distorted version of a private collection. Features of different types of collections—that of the scholar and that of the art lover, of the patriot and the religious believer—became mixed in a single museum, and all organic character was annihilated instead of an integration to a new wholeness taking place.

The regulations curtailing access to the early museums were only one, and maybe a minor, factor only among many other frustrating their purpose. There was the predilection for housing a museum in an ancient palace or in a new building constructed in a grand style obviously based on the tradition that a collection should be housed in a gentleman's private residence.[3] Hence, the " magnificent " staircases and large, high-ceilinged rooms with allegorical frescoes on the ceilings, marble panellings, and gilt carvings, which at certain periods may have been suitable for the house of persons wishing to impress their wealth and might upon their visitors, but which were incongruous with an institution alleged to serve people in their desire for learning and relaxation. Indeed, in an environment of such and similar style, people's capacities for learning and enjoyment are more likely than not to suffer from intimidation and awe. Other survival features in the early Public Museum were a legacy of the scientist, or pseudo-scientist of a pre-scientific era who, in his avidity for knowledge, would amass in his studio specimens of all kinds. Being intimately familiar with each single object, he would benefit from his collection, whatever its arrangement, monotonous or

kaleidoscopic. Yet a similar arrangement might confuse the inexpert.

The question presents itself whether those responsible for the early public museums assumed that their potential visitors represented a multiplied version of the private collectors and replicas of the visitors to the temple and church collections of past centuries, or whether those museologists had not concerned themselves at all with the minds of their visitors, as if museums were ends in themselves and not means of serving human beings.

The difficulties implied in the extension of education to ever-growing numbers of people offered problems which up to the present have not been solved, within or without the particular institution called museum. In the early stages of mass education methods devised for an *élite* of scholars were, as a matter of course, applied to the education of children and non-scholars, with alterations concerning the scope and the quantity of the subjects of study rather than the approach to them. The men and women who to a great extent were the visitors of early public museums were people who had hardly benefited from elementary education, their standards of knowledge were very limited and their approach to information differed fundamentally from the avid inquisitiveness of a pioneer-scholar. They were not possessed by the thoughts and feelings that had driven ancient Greeks to the collections of votives in their temples and of mediæval people to the images of relics and curios in churches. The sight of a holy relic or a unicorn horn would not fill them with excitement and rows of paintings of biblical themes in a museum would not infuse many with veneration. Few things in a museum of natural history or of archæology would seem to have represented stimuli in the sense of a message to the men and women struggling for adjustment in an environment in which conditions were so greatly changing. To these people a museum may have appealed as a novelty promising entertainment or information, but if confronted with overwhelming numbers of specimens and with objects presented in a monotonous and confusing manner, and without obvious bearing on their lives, their interest would pall and their first visit to a museum may well have been their last.

When d'Alembert urged the systematization of the early Encyclopædia, he defined its state by saying, " It is a Harlequin's coat where there is some good stuff but too many rags." The early museum may have justified a similar description.

programme of the late eighteenth and the early nineteenth centuries, and the Public Museum had been called into existence as a means of contributing to the adjustment of man to a changing world, but as yet the thing and its function—the Public Museum and its shape and service—were hardly delineated.

REFERENCES AND NOTES

1. *Adrastea*, 4 ,212. "Es schweiget rings um mich—In dieser Wueste erkenn ich Dich, verehrte Roma, wieder?—Und Ihr Gestalten, die ich liebend gruesste . . . Hier seh ich einen Rumpf, dort eine Bueste—Grausam zerstueckte, schoene Goetterglieder—Geflickt und hingestellt, und Angst und Jammer, in ein Museum—eine Rumpelkammer!"

2. Oxford, 1927, p. 10.

3. Viardot, op. cit. (p. 128, n. 1) pp. 7–8, described the new building of the Pinakothek in Munich which had been finished in 1836. Although built for the purpose of housing a public collection, the building still retained features of a princely residence. There were ten large rooms instead of a single gallery, but their proportions were on such scale as to produce an imposing effect. M. Viardot wrote as follows: " . . . cela unit a l'effet de l'ensemble, à la majesté du coup d'œil général."

In the Manchester Exhibition of Treasures of Art in Great Britain, in 1857, a temporary iron building served as accommodation and the main hall had a length of 432 ft. and a width of 104 ft. This may serve as an example of another ancestor of the museum building, of the Industrial Fair, which occupied an important place in the mind of nineteenth-century men (Pl. XXIV).

Section II

Efforts at Reform *

For the sake of convenience, and to some extent for palpable reasons, two periods in the reconstruction of European museums may be distinguished, one developing round the middle of the nineteenth century and suddenly brought to a close by the outbreak of war in 1914, and a second between the two wars. It is proposed to indicate only some of the essential trends of development in both these periods, as a detailed assessment and appreciation of individual efforts is beyond the scope of this survey.

A. First Period: Up to 1914

Two main differences seem to distinguish the First Period of Reform from the Foundation Era of museums : a steep increase in the number of new foundations and an evolving definiteness of purpose.

Before 1850 Great Britain presumedly possessed 59 museums ; 295 were added between 1850 and 1914. In Germany, in the course of the two first decades of the nineteenth century, between 1800 and 1820, 15 museums were founded, whereas the corresponding period in the twentieth century, between 1900 and 1920 (actually 1914) saw 179 museums coming into existence. A similar appreciable increase in the number of museums is reported by American observers in respect of their country.[1]

While during the period of the first foundations the purpose was little more than a vague tendency towards extending instruction to increasing numbers of people, in the succeeding period of reform several different motives seem to have emerged as the generating forces that brought into being the numerous museums

* Since it is not practicable to reproduce in a few chapters all illustrations which would be required for a balanced pictorial representation of *Part I, Section II*, it has been decided to abstain from illustrating this part of the book. Pictures of museums of comparatively recent periods are easily accessible in books and articles dealing with special aspects of the subject. Those desiring to consult a publication of encyclopædic character will find illustrative material of considerable range in the two volumes of *Muséographie*, published in 1934 by the *Office International des Musées*, Paris.

of that epoch. The following types seem to be among the most outstanding :

(*a*) The National Museum, sometimes referred to as Historical.

(*b*) The Ethnological Museum.

(*c*) The Museum of Science.

(*d*) The Museum of Arts and Crafts.

A few concrete examples may help to illustrate these types of museums.

The National Museum : The National Gallery in London, which was founded in 1824 and developed from a nucleus of a private collection (Angerstein), served, by the quality of its pictures of international origin, as a monument of the community's achieved greatness. This Gallery may be regarded as an example of one type of national museums as distinct from others aiming consciously at stimulating patriotism by directing attention towards objects bearing on the history of a particular community, in the form of specimens of art and archæology and of tokens of any character, even if in addition to them there would be specimens of other kinds. It would appear as if nations still striving for a balanced existence—" young nations "—had in the nineteenth century tended to deepen their communal consciousness by means of collections evidencing their existence in the past.[2]

Hungary drew strength from the existence of a National Museum erected from contributions of the rank and file of patriots by means of a tax imposed voluntarily upon themselves by a group of Hungarian landowners. In fact, the National Museum of Budapest played a rôle in Hungary's struggle for liberation from Austrian rule and it was from the steps of the museum that the poet Petoefi, in March 1848, declaimed his " Up, ye Magyars ! " which inaugurated a new phase in the fight for independence. Similarly, the National Museum of Prague began mainly as a collection of artistic, literary and scientific antiquities, testifying that Bohemia, at the time a province of Austria, had once been an independent cultural unit.

When Humboldt's aspiration to educate the Germans to be " complete Europeans " was superseded by Schlegel's patriotic yearnings, a plan for a National Gallery was conceived which was to embody the essence of the Teutonic spirit. It was to be a collection of paintings by German artists of all periods and schools. Voices condemning the idea of a " patriotic storehouse "

were raised and the journal *Dioskuren* proclaimed that to be German did not mean to be Prussian, and that Prussia had no claim to nationalism since it was no nation at all. Yet the patriotic tendency prevailed against all argument and the " Pinakothek ", the former private gallery of the princes of Bavaria with its collection of old masters of different national origin, was opened in Munich in 1836 as a museum of preponderantly Germanic paintings. The Bavarian sovereigns gave a further expression to their nationalistic leanings by founding in 1867 a museum of National Archæology.[3] Another representative German National Museum was founded in 1852 in Nuremberg, to illustrate all aspects of German life throughout the centuries.

In Spain the foundation stone for a " Biblioteca Nacional y Museo " was laid by Queen Isabella II in 1867. The Peninsula was struggling for recovery from a decline which had been conspicuous since the seventeenth century and yet had survived a century of Bourbon rulers controlled from Paris, the horrors of Napoleonic invasion and the disintegration of the Spanish world empire. Throughout endemic civil wars, the people of Spain strove for balance, and a National Museum illustrating the glories of past ages, between the seventh and the sixteenth centuries, appeared to be a means of gaining in moral strength.[4]

In Rome, the foundation of the Museo delle Terme was a consequence of the unification of Italy as a single kingdom in 1871.

In the 'nineties the first great Swedish open-air museum was opened, Skansen, Stockholm, with entire town quarters reproduced, with workshops in action, with habitat groups of animals native in the region, with attendants in regional costume, and with folk music lending atmosphere to the semblance of a complete environment. It would seem justified to list Skansen and other Scandinavian open-air, and indoor, folk museums, between national and ethnographical museums and to suggest that the Scandinavians showed a spirit of their own, differing from contemporary trends in some other European communities. There was a profound consciousness of the own tradition, self-confident and abiding, though in terms of a natural pattern of life rather than of a programme implying political action ; affection for the own past and the own region was combined with scientific interest.

The Ethnological Museum [5] *:* Specimens now listed as ethnological—implements of peoples of primitive material culture, their

garments, idols, and other objects created and used by them—had fascinated people for centuries before the foundation of ethnological museums proper ; they were particularly suitable for serving as " curios " and their very strangeness and apparent oddness had attracted the interest of European collectors. A description of the Danish king's collection at Copenhagen in the seventeenth century contained the following passage : " In one of the rooms there is nothing but the garments, arms and utensils of Indians, Turks, Greenlaenders and other barbarous nations which for their number and variety entertain the eye . . ."[6] In his *Museographia*, in which he advised collectors and collectors-to-be on the ways of setting up a cabinet, the German eighteenth-century author Neickelius wrote, between a reference to the wild ox of India and another on Indian indigo, about " savage peoples, such as are the Hottentotes, the Greenlaenders and others similar to them by their horrid appearance ". The same author gave information about the winds which suffocated people in the mountains of Chile, as could be evidenced by a mummy of an Indian completely dried out. The motives that led to the establishment of ethnographical collections and museums in the nineteenth century were distinct from that earlier curiosity and superstitious belief that strange things are odd. It would seem that in the main two lines of thought directed the evolution of the ethnological museum.

There was the anthropologist who, on lines akin to Darwin's theory of evolution, approached scientifically the problem as applied to peoples of different cultures, and the evolution from primitive life to civilization. In England General Pitt Rivers began in 1851 to form his Ethnographical Museum which was opened at Bethnal Green in 1874. He laid stress on the common article of everyday use, as distinct from the odd and curious, and his collection illustrated stages in the evolution of objects.[7] In the printed *Annual Return* for 1845 of the British Museum it was stated that " a large gallery was opened to the public for the reception of the ethnographical collections ".[8] These collections, or at least part of them, had been exhibited before in another arrangement but had been known as " curious objects ".

In France men like Jomard, Hamy and Siebold led to the establishment of the ethnographical collections at the Trocadero. It was a common practice of English and French scholars to present ethnography in connection with archæology and ethnology. The geographer Siebold recommended ethnology

as a supplement indispensable to the historian, the philosopher and the student of natural science.

It seems noteworthy that as early as 1788, in his introduction to the Account of the Pelew Islands, Keate stressed that " nothing can be more interesting to Man than the history of Man ". A new scientific spirit was superseding the ancient idea of a black man being a different species from a white man and by nature designated to be a slave. The period of enlightenment, of the Rights of Man, and of inquiry unfettered by superstition, documented itself in the growing interest in ethnology. A simultaneous influence of quite another kind which encouraged the creation of ethnological museums was the interest of imperialistic policy in strengthening the control by civilized nations over peoples of primitive material culture.

In his foreword to the *Handbook to the Ethnographical Collections of the British Museum,* of 1910, Sir Hercules Read voiced an opinion which is likely to have been shared by many of his contemporaries and of preceding generations when he reminded his fellow-citizens of the responsibilities of the leader-nation of an empire, and of the need for ethnographical collections illustrating the manners of life of native peoples. Such collections, he wrote, would help to avoid blunders in the administration of the colonies and would assist merchants in the choice of wares for export. Holland, another modern colonizing country, started in 1837 her Rijksmuseum voor Volkenkunde in Leyden and opened in 1865 a Colonial Museum in Haarlem, housing ethnological objects formerly kept in the private house of the secretary of the Netherlands Society for Industry, which had a special section for the " Study of His Majesty's Colonies and Plantations abroad ".

The Museum of Science : One way of satisfying the growing interest in natural science was by means of museums. In addition to geology, botany and zoology, technology received attention, best illustrated by the two great Museums of Science in London and in Munich, both created in essence in the pre-1914 period, even if the war postponed the full realization of the plans until a later date.

The Museum of Arts and Crafts : The connection between the Great Exhibition in London, in 1851, and the foundation in 1852 of the South Kensington Museum, later to be known as the Victoria and Albert Museum, interprets the reasons that led to

the creation not only of the great English museums of arts and crafts but of similar museums in other countries ; the mechanized era produced a desire for the advancement of the industrial crafts and every country wished to score by trading with such products. It was to some extent a modernized version of the eighteenth-century mercantilist idea of economizing by encouraging home-made art, which, at an earlier date, had caused the opening of many private collections to artists. In the new museums of arts and crafts the commercial motive mingled with idealistic tendencies towards an improvement of standards of taste which had deteriorated under the influence of mechanized production.[9]

With respect to their contents two further aspects of the Public Museum in the later nineteenth and the early twentieth centuries call for attention. There is, though in theory only, a project for "*Civic Museums*", as formulated by Sir Patrick Geddes,[10] which were intended to illustrate the development of cities and towns, the foci of human life in the industrialized era. If viewed in a historical perspective the project of Civic Museums appears potentially fruitful in several ways. It had a definite purpose and was addressed to a certain group of people, the town-dwellers, and especially to the inhabitants of a particular locality. A museum of this kind was, to use Sir Patrick Geddes's words, " a means to develop civic sense and civic consciousness . . . to serve as an incentive to action ".

The educational motive implied in the scheme of the Civic Museum was further expressed by a developing tendency towards using museums as an aid in the education of school children. Before the end of the century several British museums made special arrangements for children, by exhibiting specimens, above all of natural history, of models and of pictorial material, which were likely to appeal to young people, and by lending specimens to schools.[11] Single efforts of similar character, but incidental rather than systematic, were undertaken on the Continent. On the whole, the European efforts at utilizing museums as means of education appear modest if compared with the vigorous contemporary activities in the United States where education was considered a primary function of the Public Museum from its very beginning.[12]

Tendencies in respect to the choice of *contents* have of course to be considered in conjunction with manners of *presentation* characteristic of the period under discussion, that is roughly between 1850 and 1914.

The trend towards specialization in subject-matter had its effects on aspects of presentation as well as being influenced by them. There was a pressing need to set limits to the expansion of museums, and where a limitation in size was decided upon, or dictated by the limits of the available accommodation, it was as a rule carried into effect by the secession of specimens connected with one subject, a specialized collection thus resulting. In 1883 the Natural Science collection of the British Museum was moved from the headquarters in Bloomsbury to another part of London, to Kensington, which developed to a centre of specialised museums. Since 1899 the South Kensington Museum has been known as the Victoria and Albert Museum and has become devoted exclusively to arts and crafts ; the Science Museum split off to a separate establishment.

The tendency to specialization effected that even within one building objects were grouped more accurately according to their contents. The Department of Oriental Antiquities and of Ethnography of the British Museum was in 1861 divided into three separate units. Greek and Roman relics formed one part, coins and medals formed a grouping, and Ethnography was lumbered together with objects referred to as Oriental, British and Mediæval Antiquities. In 1866 the Oriental Antiquities, containing Egyptian and Assyrian specimens, split off. Such reorganization was, however, as a rule the prerogative of large museums, which not only had substantial funds at their disposal but were most pressed by congestion.

Efforts towards imparting organic character to the museum seem to have been guided by two tendencies, almost contradictory to each other, which may be referred to as the schools of *analysis* and of *synthesis*.

The analytic approach was that of the dominant natural sciences and required specimens to be marshalled according to " genera ", in fixed classes and sub-divisions. According to this " Darvinisme Muséographique ", to use the term of a French critic, a collection of archæological specimens would be presented in a series of pottery, metalwork, architectural ornament, etc., with each class appropriately sub-divided. To the scientist the museum was a " consultative library of objects " and his methods were transferred to the museum of art and archæology. In the standard work in English on museums, D. Murray's *Museums, their History and their Use*, published in 1904, the author defined his subject by stating on p. 1 : " A Museum, as now understood,

is a collection of the monuments of antiquity or of other objects interesting to the scholar and the man of science, arranged and displayed with scientific method." The "scientific" outlook implied a preference for a simplified style of museum architecture, though in practice the main changes brought about concerned the tiled or lino-covered floor instead of parquet and a certain restraint in the size and the decoration of walls which were now more often painted in light colours instead of in Pompeian red. The lighting of exhibition rooms was regarded as a major problem. In order to restrict reflection and shadows, daylight was not to be allowed to fall directly upon paintings, which were to be lit by diffused top light.

The other school of thought which in varying degrees revealed a tendency to integrate single features into a synthesis, may be illustrated by the implications of a criticism of the analytic approach formulated by G. Brown Goode. In a paper on "Museum History and Museums of History", read in 1888 to the American Historical Association, Mr. Brown Goode, one of the great museologist-pioneers, said: "An efficient educational Museum may be described as a collection of instructive labels each illustrated by a well-selected specimen." In fact, the analytic approach with its chronological or geographical series could satisfy the expert student of the exhibited subject, but hardly the general public still left at the mercy of overwhelmingly great, monotonously presented and scantily labelled quantities of specimens.

Whereas the analytic approach required specimens to be filed in series, those in favour of synthesis claimed that works of art, and other products as well, were to be treated as "unica" and not to be wasted by a presentation in series. Their line of thought found some realization in arrangements in which a limited number of selected works of art was exhibited in connection with specimens of furniture and crafts of the environment that had produced the paintings or the sculptures. In 1888 complete interiors in the style of the fifteenth, sixteenth and seventeenth centuries were shown in Nuremberg, where the museum was housed in a former monastery. The first comprehensive application of this style of presentation was left to Herr von Bode, the director of the Kaiser Friedrich Museum, Berlin, who, in the years 1904–5, was responsible for arrangements in the style of "synthesis". On a truly large scale, however, the "period-room" presentation was to be developed in the United States

in years to follow. The Scandinavian open-air folk museums mentioned before were another opportunity for presenting a variety of specimens in a manner of synthesis. On the whole, however, in the early period of museum reform the trend towards " humanization " was in most cases expressed by a limitation in the number of exhibits, which otherwise were presented in the habitual manner of monotonous series.

In museums concerned with specimens other than objects of art, an integration was attempted by presenting the objects in a sequence of evolution or comparison. General Pitt Rivers presented the ethnological specimens in his collection according to their evolution from primitive to more complex or more efficient stages, be the specimens firearms, looms, pottery, or otherwise. His method is still applied in the museum at Oxford which bears his name. In the Museum of Science in Munich products of nature and technical appliances were exhibited with stress laid on the interdependence between the natural sciences and technical inventions. Mining began with an exhibition of geology and raw materials and led on to the technical aspects of mining presented in the form of a chronological historical survey.

The unsolved argument as to whether a selected group of objects should be exhibited either in the manner of a " period-room ", or by setting out all available objects in the manner of a library, led to the plan of combining both principles by dividing the museum into two parts, one accessible to the general public and the other reserved to students.[13] Further innovations of this period of reconstruction concerned the access of the general public to the museum. As a rule the Public Museum became accessible to everybody on all days of the week and in many cases on Sundays as well. With few exceptions the hours of opening coincided with the period of daylight. Where entrance fees were charged at all they were kept so low as to enable people with small incomes to visit them. The Museum of Science in Munich set out to attract visitors by a novel feature. It offered facilities to visitors to acquaint themselves with the exhibits not merely in the passive manner of spectators but by handling exhibits and by testing mechanical processes. In other words, the museum was planned in such manner as to serve as Everyman's Laboratory.

The introduction and tremendous development of motor transport had definite effects on the development of museum

services. A telling account of the increase in the numbers of visitors to museums in country districts was given for America by L. Vail Coleman. According to this information there existed in the United States, in 1895, 4 motor-cars and 20 House Museums, and, in 1910, 500,000 cars and 100 House Museums.[14] There is no doubt that both rail and road traffic, as well as improvement in transatlantic travel, has greatly contributed to the increase of visitors to the museums in European capitals and in places of special historical associations. With the aid of mechanized traffic the radius of museum activities extended in two ways, by bringing visitors to museums and by sending out itinerary exhibitions. In 1855, the South Kensington Museum in London inaugurated its Circulation Department which loaned specimens first to schools of art and soon after to other schools and institutions as well. The museum in Hagen, Westphalia (Germany), founded in 1912, and known as The German Museum of Applied and Commercial Arts (Deutsches Museum fuer Kunst in Handel und Gewerbe) may serve as another example of Loan Museums.[15] The aim of this museum was the fight against bad taste in contemporary industrial crafts, and the procedure was to collect fine specimens of modern arts and crafts, to set up exhibitions and offer them for display in museums and various societies interested in the subject. In 1912 fifty exhibitions arranged by this itinerary museum were shown in forty-two towns, of which eight were outside Germany.

In spite of these efforts at, and the even more impressive programmes for, reform,[16] the resulting progress, if viewed in the perspective of time, hardly equalled the influence of tradition that remained decisive in the manners of acquisition, selection and presentation of specimens in the majority of the European museums. Throughout the period up to 1914, the European museum on the whole remained an accumulation of objects acquired to a great extent in a haphazard manner, very often through donations. Only exceptionally did the manner of presentation merit the term systematic. More often than not the collections were inadequately housed, in indifferent buildings or in pretentious structures faking the style of Greek temples, Renaissance palaces or mediæval cathedrals.

The National Museum in Munich, founded in 1867, was housed in a building which originally had been intended as an Institute for the Deaf and Blind and then had been found unsuitable for the purpose. The structure was of somewhat inferior quality as may be gathered from the collapse of ceilings which

caused injury to visitors and damage to exhibits. When the much-discussed Imperial Museums of Vienna were completed in 1881, the palatial architecture with its copious Renaissance decoration proved too small for the specimens to be accommodated. The site would have been large enough, but according to tradition the rooms and corridors had been made so spacious, and above all so high-ceilinged, that the practical purpose of the museum was almost defeated. The building designed to hold the Art Gallery and Museum of Glasgow, which was completed in 1901, was, to quote a contemporary description, an " ornate structure in the spirit of the French Renaissance ". There was an abundance of carved surfaces and a floor of variegated, white, black and yellow marbles, and the great hall was impressive by its mere height of eighty feet. The Victoria and Albert Museum was hardly established in its new building, in 1908, when criticism was voiced, especially on the shortcomings of the building itself; on the lack of provision for offices of keepers, bad lighting and the uniform type of cases.

The museum buildings of that epoch may be best defined in the words of an authoritative contemporary architect, Russell Sturgis, who wrote in the *Dictionary of Architecture and Building* (New York, 1901, vol. II, p. 1000) as follows :

> It is noticeable that no special pains have been taken by the directors, guardians, or builders of museums to agree as to the essential characteristics of those buildings. Such agreement as the librarians of Europe and the United States have sought to reach might have proved of great benefit to the managers and to the public. The earliest museums especially built for that purpose are as good as the latest . . . the latest-built ones are as likely to prove failures as those of half a century ago . . . a very plain shed . . . is easy to arrange . . . great architectural splendour . . . have generally interfered greatly with proper lighting and showing of the objects exposed.

A Report on museums published in 1888 in the *Proceedings of the Society of Antiquaries of Scotland* contained statements with respect to Scotland which, to some degree, would seem to illustrate the contemporary state of European museums in general. In the Summary, p. 721, it was suggested that " . . . if all the contents of all the local museums were brought together, they would fail to furnish the materials for a systematic Archæology of Scotland. . . . They (the museums) have not made it their business to tell any particular story . . . and the fragmentary stories they do tell are so incompletely and unsystematically set

forth that they are unintelligible to the public." In the same year was published in London T. Greenwood's *Museums and Art Galleries*, in which it was stated in the preface, " The subject upon which this book treats is almost without literature." The author posed the question—which, probably was borrowed from those among his contemporaries who were inimical or indifferent to museums—" Why should every town have a museum ? " and his answer was : " Because a Museum and a Free Library are as neccesary for the mental and moral health of the citizens as good sanitary arrangements, water supply and street lighting are for their physical health and comfort." The reigning attitude of people towards museums and the state of museums in general may be illustrated by two further following quotations from this book (pp. 3, 4) : " In not a few towns a casual inquiry from a passer-by of average intelligence as to the whereabouts of the local museum would cause him to hesitate before replying . . ." and " The orderly soul of the museum student will quake at the sight of a Chinese lady's boot encircled by a necklace made of shark's teeth . . . of the stuffed relics of a dog."

The complaints of museum critics continued in the twentieth century, and the reasons for complaint were manifold. In 1903 the curator in charge of one of the great European museums despairingly faced a museum in which, to use his own words, " the natural collections are walking into the tapestries and becoming so overlapped with the art collections that elephants and sixteenth-century art are mixed together." A few years before 1914 the German author E. Fuchs, himself a great collector, declared, with special reference to the public collections in Berlin in the era of William II, that " the contemporary museums give but a fragmentary idea of the culture of past epochs, . . . they show them in a festive attire and only rarely in their everyday appearance ".[17]

From these, and numerous similar criticisms brought forward by experts, one gains the impression that after several decades of efforts at reconstruction the Public Museum of Europe was still not fulfilling its function adequately. Consequently, several questions may be asked. Why was progress so slow and undecided—whatever direction it may have taken ? Obviously, there were experts keenly interested in the development of museums and among them were people of imagination and definite ideas. What were the influences obstructing their plans, or at least limiting them ? Were there any definite in-

fluences opposed to those of the experts whose suggestions were briefly described ? Was indifference—on the part of the authorities controlling funds or of the public, or of both—a power of paralysing effect ? Were the contradictions in the manners of approach to museums mirroring different, and contradictory, trends in contemporary European society?

Our argument is : How far, if at all, were the functions of museums in the later nineteenth and the early twentieth centuries comparable with services rendered in their respective societies by collections of preceding epochs ? How far, if at all, were the functions of previous collections (compare p. 12) still extant in the Public Museums of the first Reconstruction Period ? Or did these museums fulfil new functions ? Some answers to these questions were implied in the earlier paragraphs of this chapter, but an explicit summarizing statement may help to shed light on the circumstances.

Let us try to answer these questions first from the point of view of the museum visitor.

Obviously there was no demand for Economic Hoards, or for collections in the manner of such hoards. Even people who experienced feelings of pride and self-confidence when reading what weights of gold were in the safes of their national bank, had no such pleasurable response if confronted with masses of specimens in a museum. There, the sheer quantity of things otherwise desirable produced bewilderment and displeasure.

The boastfully pretentious styles of museum architecture were a disadvantage to the visitor. They created an atmosphere adverse to concentration as well as to relaxation.

The lack of interest of the period in collections of " magic " objects hardly requires further comment.

As a means of documenting group loyalty, the museum of those years had a similarity of function with preceding collections, though the objectives of devotion may have varied to some extent. The efficient men of the industrial era had little regard for mythical supermen and ancestors of a Golden Age ; the Mediterranean had lost much of its importance in the minds of people as the image of the cradle of civilization, in spite of the rôle still played by classical education. Judging by the character of numerous existing museums it appears that in the years preceding the First World War nationalistic loyalty ranked first and dwarfed all consciousness of a common Europeanism ; unless the White Man's colonizing efforts beyond Europe, which in the

sphere of the museum were represented by the evolution of ethnological museums, may stand for a new variation of European consciousness.

The function of stimulating a spirit of inquiry in people appeared intensified in the Public Museum of the late nineteenth and the early twentieth centuries, if compared with collections of preceding periods. There was a considerable increase in subjects represented in museums, which invited inquiry, an increase in the accuracy of the approach to study, and an increase in the number of inquirers.

As to opportunities for emotional experience, the function of the Public Museum of that period does not appear convincing. On the one hand art galleries were founded in appreciable numbers and the quality of single objects was often of great excellence, but on the other hand the presentation was as a rule so uncongenial to art that it must have dimmed, or defeated the enjoyment of sensitive people—unless the number of sensitive people was very limited. In either case art museums cannot have fulfilled their function adequately.

Summing up, the European museum in the years of reconstruction before 1914, with respect to its visitors seemed to fulfil two main services : to act as an expression of group loyalty, above all of patriotism, as an instrument of investigation into a variety of scientific problems and, to some extent, of education. Though, undoubtedly, these requirements ought to have been the prime forces fashioning the Public Museum, a spirit of hoarding and boasting maintained itself in the majority of European museums in the face of all desirable usefulness, opposing and stultifying it.

The contradictory influences might eventually have found their balance, but the outbreak of war in 1914 put an abrupt end to all efforts at reconstruction.

REFERENCES AND NOTES

1. Miers, Sir Henry, *A Report on the Public Museums of the British Isles (other than the National Museums)*, Edinburgh, 1928. See Statistical Index, pp. 84–207 ; p. 10, " The richest period of museum development was perhaps the forty years, 1880–1920 . . . The first Act of Parliament appertaining to museums was the Museums Act of 1845, which enabled town councils to found and maintain museums."

The *Final Report of the Royal Commission on National Museums in Great Britain*, 1929, stated that since the middle of the nineteenth century more rapid progress was made in British museums.

In 1873 The Royal Society of Art in London formed a Standing Commission

to prosecute a national scheme for museums. Among the objectives this Commission was " to make all public museums and galleries serve an educational and scientific purpose " and " to assist local museums by loans from national museums ". Some time before the formation of the Standing Commission, the Society had compiled a list of twenty-eight collections in the country which were dealing with a subject of practical interest (history of cotton manufacture ; rock formations, etc.) and which were distinguished by good order.

At the meeting of the Yorkshire Philosophical Society, in York in 1888, at which the formation of the Museums Association was decided, the following objectives of the new association were named :

(1) Means of interchange of duplicate and surplus specimens.

(2) Means of securing models, casts and reproductions.

(3) Scheme for a general supply of labels, illustrations, and information.

(4) Uniform plan of arranging natural history collections.

(5) Scheme for securing the services of specialists.

(6) Improvement of library and museum legislation.

(7) The indexing of the general contents of museums.

(8) The promotion of museum lectures to working men.

(9) Preparation of small educational loan collections for circulation among schools.

(10) Concerted action for securing Government publications and also specimens, on loan or otherwise.

(11) The issue of a Journal by the Association, and the collection of scattered papers original in the said Journal, if found possible.

See *The Museums Journal*, London, 1901, vol. I, p. 5.

Beard, Charles, A., and Mary R., in their book *The Rise of American Civilization*, London, 1927, in the chapter " The Gilded Age ", p. 447, wrote as follows : " . . . at the celebration of the centennial of independence in Philadelphia in 1876 a great display of European, Oriental and American paintings, sculpture, porcelain and textiles gave the general public its first chance to get a glimpse of the world's masterpieces . . . (there) sprang, during that decade, museums of fine arts, such as the institutions in Boston and New York. . . . Within a few years, it was a mean city indeed that could not boast of a public art collection, or at least an occasional exhibition."

Taylor, F. H., *Babel's Tower. The Dilemma of the Modern Museum*, New York, 1945, pp. 18 sq. " The American Museum is the child of nineteenth-century liberal thought. . . . About 1800 . . . America became a new world for the merchant to conquer. Shipload after shipload of works of art arrived in New York, Philadelphia and Boston and were sold to the more prosperous propertied gentry."

2. In Great Britain a National Museum encouraging nationalistic tendencies never came into being, in spite of repeated appeals for the formation of a museum illustrating obsolete native customs and appliances. A plea of this kind was issued by H. Balfour in his presidential address to the Royal Anthropological Institute in 1904 ; apparently, however, efforts of scholars and arguments of students were not, as a rule, the powers decisive in the formation of national, or nationalistic, museums—or of European museums in general. Balfour, H., " The Relationship of Museums to the Study of Anthropology ", *The Journal of the Royal Anthropol. Institute of Great Britain*, 1904.

3. Hefner-Alteneck, op. cit. (p. 92, n. 3).

Eberlein, K. K., " Vorgeschichte und Entstehung der Nationalgallerie," *Jahrbuch der Preussischen Kunstsammlungen*, Berlin, 1930.

4. Gutierrez, A. Garcia, *Noticia historico-descriptiva del Museo Arquaeologico Nacional*, Madrid, 1876.

The Royal Decree, published on 21st March, 1867, and explaining the

purpose of the new museum contained the following passage : " . . . testigos incorruptibles de las edades que fueron, y comprobantes irrecusables del estado de la industria, de la ciencia, de las costumbres, de las instituciones y de la cultura general del pais en las varias épocas de su historia."

5. Hamy, E. T., " Les Origines du Musée d'Etnographie ", *Revue d'Etnographie*, vol. VIII, London, 1899.

Bahnson, K., " Ethnographical Museums ", *The Archæological Review*, London, 1889.

Jomard, E. F., *Caractère et Essai de Classification d'une Collection Ethnographique*, Paris, 1845.

Balfour, H., op. cit. (p. 150, n. 2).

Braunholtz, H. J., " Ethnographical Museums and the Collector : Aims and Methods ", *The Journal of the Royal Anthropol. Institute of Great Britain*, London, 1938.

6. Quoted by Murray, op. cit. (p. 39, n. 5).

7. Lane-Fox Pitt-Rivers, *The Evolution of Culture*, ed. by Myres, J. L., Oxford, 1906.

8. Parliamentary Papers, 1846, vol. 25, no. 217. " An Account of the . . . British Museum for the year 1845 ", p. 10.

9. Richards, C. R., *Industrial Art and the Museum*, New York, 1927.

10. Geddes, Sir Patric, " Civic Museums ", *Social Papers*, vol. III, London, 1907.

11. Miers, H., op. cit. (p. 149, n. 1).

Museums and the Schools, Board of Education Pamphlet, London, 1931.

Swanton, E. W., *A Country Museum*, Haslemere, 1947.

Die Museen als Volksbildungsstaetten (Report of a Conference at Mannheim), Berlin, 1904.

12. Ramsey, Grace Fisher, *Educational Work in Museums of the United States*, New York, 1938.

13. Reinach, S., " Musées, Bibliothèques, et Hypogées ", *Revue Archéologique*, Paris, 1909.

14. *Historic House Museums*, Washington, 1933, p. 18.

15. Freyer, K., " Ein Wandermuseum ", *Museumskunde*, Berlin, 1913.

16. Comp., f.i., *Museums Journal*, London, 1903, pp. 71 sq., 247 sq., 312 sq.

17. Quoted by Benjamin, W., " Eduard Fuchs, der Sammler und Historiker ", *Zeitschrift fuer Sozialforschung*, vol. VI, Paris, 1937.

B. *Second Period of Reform : Between the Two Wars.*

Four theatres of action seem to delineate themselves during this period : the Russian Soviet Socialist Republics ; the Fascist States, Italy and Germany ; the United States of America ; and those areas of Europe that may be summed up as " Liberal Europe ". It is not the object of this essay to evaluate the ideological programme of any of these efforts, but to consider them from the point of view of their ingenuity as museum work and of the degree to which they seem to have fulfilled the set programme. Areas outside Europe are instanced mainly for the purpose of setting against their background the problems of European museums.

In *Soviet Russia* the period of revolutionary social change offered unprecedented opportunities for a reform of the Public Museum.[1] The Commissariat in charge of the " Enlightenment of the People ", which came into existence with the 1917 revolution, established a Central Office for the Care of Objects of Art and Archæology (*Otdjel po djelam musejev i ochranjenije pamjatnikoff iskusstwa*) and in 1921 a central office controlling all museums was set up. The tasks confronting these authorities were formidable indeed.

The outline of the programme of reconstruction may be best summed up by a reference to the challenge accepted by Russian museum workers in a conference in 1930. They set themselves the task of creating museums that would act as " weapons " in the struggle for the reorganization of society and which would be a means of shaping the minds of people in accordance with the accepted philosophy of life. What representative museum workers wrote in respect to the Hermitage may be taken to constitute part of a general programme : " Its (the museum's) mission is to help the great masses of the workers of the Soviet Union to form right ideas of the various forms of culture created by different classes of society in the course of the development of civilization ; to help them to select in this uninterrupted series of evolution of society all that may be of value and may be made part of the cultural heritage of the proletariat . . ."[2]

In the main there were three different kinds of collections waiting to be reshaped into Public Museums which in the pre-1914 era had remained undeveloped. There were some big museums —such as the imperial collection of paintings in the Hermitage in Leningrad, the Rumyanzov Museum of history, pre-history and ethnography, the Tretyakov Museum of Russian Art—which contained vast accumulations of specimens, partly of excellent quality, but were hoards rather than displays of objects. Only a minority of specialized students could benefit from the informative and æsthetic values of those stores; to a wider public these museums, though theoretically accessible, were hardly so in terms of practical experience. Further, there were in many parts of the far-flung country smaller museums founded by societies interested in a branch of natural science, ethnography or archæology, but even a society of the status of the Academy of Science has in Czarist times lacked the funds necessary for an adequate accommodation and maintenance of their specimens. Finally, there were the numerous private collections deserted by their owners who at the outbreak of the revolution had fled abroad. In 1917 the estimated number of museums had been 114, in 1934 it was 738. The Regional Museums showed the greatest numerical increase. Other favoured subjects were public health, technical science and history connected with the recent revolution in particular and with social problems in general.

The transformation undergone by the Hermitage since 1930 may indicate some trends of development in Soviet Russian museology.[3] What, originally, in the days of the Great Catherine had been a boastfully decorative accumulation of pictures and later had been subjected to certain principles of order according to chronology and quality of paintings, was now sifted and re-ordered. The guiding principle was to regard all objects which were human products, be they tools, pottery, paintings or machines, as records of human existence under certain conditions of society,—" slave-owning ", " feudal ", " capitalistic ", etc. The French Department was reorganized first. Furniture, sculpture, textiles and samples of other crafts came to join the paintings which before had alone filled the Hermitage, and were grouped in a series of rooms illustrating phases of French history and the contribution which different classes of society had made in the process of historical evolution. There was the France of royal absolutism, symbolized by large gobelins in cool academic style, costly inlaid furniture and silversmith-work, and the France

of the feudal and moneyed upper classes coming to the fore with the disintegration of the absolutist régime and recalled in another room equalling the former in luxury but with louder and livelier accents in the paintings and accessories. Further rooms with differing sets of furniture, pictures and other objects aimed at evoking the memory of the French middle class, at a period when it had been the ally of kings against feudal aristocracy, and later, at the dawn of the Great Revolution. Similarly, German and Italian exhibitions were prepared : German art and culture at the time of the German Peasant War and in the period of Industrial Capitalism, and so on. Another series of rooms was devoted to the cultures of the Orient.

The formal principle chosen for the arrangement of the exhibits was the synthesis of various kinds of objects, of works of art and objects of use, and a co-ordination of visual arts with music and literature. Books written and read at a certain epoch were among the equipment of the exhibition room devoted to that particular phase of culture ; concerts on instruments of the period were arranged ; lectures on the literature of different periods were held.

The re-naming of the former Museum of Fine Arts in Moscow as a Museum of Descriptive Art was characteristic of Soviet Russian museology. Objects of art, like any other products of man, were regarded as records of events and as evidence of states of the human mind under varying conditions of society. In the Museum of Modern Art in Moscow paintings of realistic, impressionistic and expressionistic styles were exhibited as illustrations of the contradictory strains of the " bourgeois " society of the " imperialistic era ". Whereas some museum workers put the informative value of paintings so high as to deny to masterpieces of art all claim to special appreciation and to minimize æsthetic values in general, others recognized the vigour and the subtlety enshrined in an artistic communication and wished to utilize its emotional appeal in their ideological campaign among the great masses.

Judging by the variety of museums of informative character that sprang into existence in the Soviet Union, a dissemination of information would seem to be the paramount aim and one may assume that aims will gain in complexity and in detachment from immediate problems in political and economic life when the levelling up of the educational standards of the great masses further improves, and a lessening in emergency conditions

permits relaxation. Then art as an opportunity for individual emotional experience may be given greater scope, for it is noteworthy that the Russian museum workers themselves regard their efforts as a progressing experiment. They stress the difficulties of problems connected with the exhibition of objects of art and are anxious that a museum should have the qualities of a book that is exciting as well as informative.

The range of interests covered by museums of informative character is impressive. There are the numerous provincial museums devoted to local matter, both to natural science and to history. There are the museums of science, the planetaria, the biological and anthropological collections. Further, there are the Hygiene Museums, known for instance as the Museum for the Protection of Mother and Child. The Transport Animals Breeding Research Institute in Moscow calls for attention for its manner of combining a purpose of immediate practical value, the study of animal husbandry, with information on horses and transport of wider cultural implications, illustrated by a collection of paintings showing horse-traffic in past epochs. Similarly in the Museum of Reconstruction of Agriculture a historical survey is offered of the evolution of agriculture from primitive stages, in the pre-capitalistic and capitalistic eras, as petty-peasant farming and finally as socialized work on the land. This historical part serves as introduction to current problems in farming. In addition to its exhibits on view in the museum, models of agricultural machinery and different breeds of cattle are put at the disposal of collective farms and agricultural academies.

Many of these museums are the primary laboratories of the scientists-to-be and maintain a close collaboration with the schools. The appeal to the general public is strengthened by opportunities offered to them to show initiative and co-operation in the course of their visits. Working models of machines are often exhibited, ready to be set in motion by visitors ; amateur art is encouraged ; children are invited to help in the gathering of specimens for local collections.[4] Work for the general public is facilitated by the consciousness of the Russian museum workers of a distinct difference between exhibitions for the laymen and collections for students, the former tending to be "synthetic" views of culture units and the latter chronologically arranged sequences. In accordance with the growing definiteness of purpose of their collections, the Russian museums encourage differentiation of service by members of their staff and are

conscious of the importance of the educationalist responsible for the presentation of specimens to different groups of visitors, as distinct from experts specializing in a branch of science or arts.

The views on European and American museums held in Soviet Russia may contribute to the characterization of Soviet museology. Representative Russians described as the ultimate goal of " bourgeois " museums the desire to create an image of the past as something immutable—in contradiction to the continuous flux and change of development—and they held that the priority given to works of art in those museums was based on the belief that the appeal to people made by the æsthetic qualities of specimens would contribute to the consolidation of conservative culture.

REFERENCES AND NOTES

1. Adler, B., " Das Museumwesen in Russland waehrend der Revolution ", *Museumskunde*, Berlin, 1924.

2. Abramov, S. A., ed. *Museums and Collections of the Soviet Union.*

Sergievski, U. V., *Museum of Descriptive Art*, Moscow, 1930.

Ternovetz, B. N., *Museum of Modern Art*, Moscow, 1934.

Федоров-Давыдов Советский Художественный Музеи, Moscow, 1933.

Musées. Enquête Internationale, ed. by G. Wildenstein, Paris, 1937. (Article on Russian Museums).

3. Legran, B., *La Reconstruction Socialiste de l'Ermitage*, Leningrad, 1934.

4. In the Historical Museum in Moscow, the student-visitor is offered drawers with card-indexes on which every single specimen of the museum is described and shown in a photograph. In the manner customary in libraries the visitor applies for certain specimens by naming them by their numbers registered on index-cards and the desired objects are brought to him on a tray, which is so constructed that it slides into a cabinet when the objects are kept in store. Only a small part of the specimens, selected in accordance with a special period or a type of exhibit, are on show. Conway, W. M., *Art Treasures in Soviet Russia*, London, 1925, p. 173.

In the Toy Museum in Moscow children are the chief visitors and their co-operation is invited by the management. They are asked to give their views on models for new toys to be produced in the museum and to suggest ways of improving models. Conway, op. cit. above, p. 136.

Legge, C. M., on Russian Museums, *The Museums Journal*, London, April, 1936, and October, 1938.

* * * * *

The Fascist States

Italy. Of museum work undertaken in Fascist Italy two new foundations in Rome stand out as characteristic efforts of the period : the " Museo dell' Impero Romano ", inaugurated in 1926, and the " Museo Mussolini ", opened in 1938.

The catalogue of the " Museo dell' Impero Romano " authoritatively stated that this museum owed its existence to the enthusiasm for ancient Rome which had been generated throughout the Italian nation by the spirit of Fascism.[1] The collecting of relevant specimens had been organized on a large scale and requests had gone out to all thirty-six provinces of the country to search for and to deliver to Rome any kind of record of the ancient past. In this way sculpture, reliefs, photographs, maps and a variety of archæological material were assembled in considerable numbers. The informative character of the objects was as much valued as artistic quality. The figures, reliefs and written records illustrated Roman customs and manners, the garments and weapons worn by the soldiers of the legions which had conquered three continents, the ships in which Roman sailors had won victories, domestic utensils of the ordinary citizen and the principles of administration on which the rule of the empire had been based. The temporary accommodation of the collection in the *Terme* of Diocletian connected these exhibits with the existing Italian National Museum, but the spirit of nationalism which in 1876 had led to the foundation of the National Museum had, at the time of the fiftieth jubilee of Italy's unification, in 1926, developed into imperialism. A paragraph in the catalogue of the new collections runs as follows :

> When in future the finally collected materials are exhibited in a building worthy of them, not only students but the educated general public and especially the growing generation of boys and girls visiting the exhibitions will realize with admiration what the Romans achieved in Gaul and in Spain, in Britain and in the Orient, in Asia and in Africa. In all minds the museum will evoke a vision and a consciousness of what the Roman Empire once represented, and what it still represents in the history of human civilization.[2]

The " Museo Mussolini "[3] was opened in 1938 and was provisionally accommodated in a building which once had housed the San Ambrogio convent. Again, the contents were materials of classical archæology, yet in this museum they were connected with Rome, the *urbs*, the nucleus and focus of the *imperium*. A passage in the catalogue explains that " the museum is dedicated to the man who himself has devoted to the urbs his indomitable, passionate spirit and his untiring labours ".

In respect of their contents both these new Italian museums are of considerable interest to any student of archæology, and especially of classical archæology, whatever his nationality may

be. It appears therefore significant that those responsible for these museums addressed themselves mainly, or solely, to Italians as their potential visitors. No special provision was, however, made to bring the archæological exhibits nearer to the understanding of non-archæologists, of the general public, and of children who were declared to be important visitors to the new museums. On the whole, the arrangements adhered to convention, with a tendency towards a limitation of the number of exhibits, and in favour of quiet backgrounds. One may conclude that it was the aim of these museums to impress people with the quantity of materials on the unique subject " Rome ". A sentimental link between the specimens and the visitors was established by introducing all exhibits as part of the life-history of the country —almost chapters of every Italian visitor's family history. In this light any object otherwise indifferent to the non-archæologist —sculpture, relief, mosaic, map or written document—became portentous.

Summing up, the purpose of the Fascist Italian museums was the education of the masses. It was a special kind of education, a subordination of interests to a single master idea : Italy's political mission to regain the position of a world empire, as dictated by the destiny of Rome. The method of instilling people with this idea consisted in discouraging them from using their reasoning powers which were starved of factual information and were dimmed by constant emotional appeal. The desired result was the shaping of men into devotees and fighter-slaves.

In addition to these activities, guided directly by a definite political programme, the rearrangement of the gallery of paintings in the Vatican, one of the numerous rearrangements of the Pinacotheca Vaticana, should be mentioned.[4] The Fascist tendency to quantitative enlargement, both in the number of exhibition rooms and of exhibits, which increased from 282 to 463 pictures, marks this rearrangement, in which an effort was made to bring a more systematic order into the sequence of the paintings. The plan was to honour the claims both of sober chronology and of æsthetic values. In fact, the more modest task of grouping pictures according to contents was to some extent achieved, with representations of sacred themes being shown separately from portraits and other lay subjects. A definite improvement was achieved in the room containing pictures by non-Italian masters where hitherto eighteenth-century English masters and mediæval Germans had been close

neighbours. Yet it would appear that on the whole in its non-political aspects the reorganization of the Roman museums was guided by indecision as to the principle of order to be chosen, and, apparently, of aims in general.

REFERENCES AND NOTES

1. Giglioli, G. Q., *Museo dell' Impero Romano*, Rome, 1929.
p. X. " La risorta coscienza nazionale, lo spirito che il Fascismo ha infuso negli Italiani, hanno portato como naturale conseguenza, un ritorno entusiasta al culto della romanità. . . . Su tutta l'Europa, l'Asia e l'Africa dove si svolse la civiltà antica, restano le tracce di Roma con monumenti di arte e piú ancora di sapienza civile."
2. Op. cit. above, p. XI. " Quando poi si potrà ordinare in degna sede il materiale que si sarà raccolto, non solo gli studiosi, ma il pubblico colto e especialmente i giovanetti e i fianciulli delle scuole, potranno, passando di sala in sala, ammirare riprodotto ció che i Romani fecero in Gallia e in Spagna, in Britania e in Oriente, in Asia e in Africa, e avere in un momento la visione e la conscienza di ció che l'Impero di Roma fu ed è ancora nella Storia dell' incivilimento umano."
3. Mustilli, D., *Il Museo Mussolini*, Rome, 1938.
4. Nogara, B., *Monumenti, Musei e Gallerie Pontificie*, Rome, 1934.
Lipinsky, A., " Pinacotheca Vaticana ", *Museumskunde*, Berlin, 1937.

Germany. In August, 1933, the museum workers of Nazi Germany met in a conference at Mainz and resolved that it was their first task to be true servants of their epoch . . . of an epoch dictating that " museums too should co-operate in the great task and with all their powers contribute to the shaping of an amorphous mass of population into a nation ".[1]

Two types of museums, closely connected with each other, are characteristic of the Nazi period. There is the Fatherland Museum (*Heimatmuseum*) and the Army Museum (*Heeresmuseum*). Few kinds of museums can have gripped the imagination of the general public more than the Fatherland Museum. Newspapers offered prizes for the best description of the value of such museums to the citizen, and in their answers people described how their museum fortified them in times of difficulties and of doubt, and that it made them realize the continuity of history in which the individual was but a link in a chain.[2] The Fatherland Museum was regarded as an important aid in the education of children and in the moulding of young people as members of the national community, in accordance with the changes in the

history curriculum in which since 1935 stress had shifted from international events and recent periods of history to pre-history and early German history. In a museum illustrating the dawn of history, the growing generation of Germans was to be imbued with faith in the common destiny of all Germans and with the will to help with all their power to maintain the unity of nation and country.

Special initiative in respect to the co-operation between the Fatherland Museum and schools was shown in Hanover where a " Prehistoric workshop " (*Vorgeschichtlicher Arbeitsraum*) was set up in a disused school building.[3] Every child spent two days of his school career in this workshop-museum and was made familiar with the life of his prehistoric ancestors by handling objects they had produced and used in their daily occupations, and by making themselves objects modelled on ancient ones. The ultimate aim was not merely to impart facts to children but to kindle enthusiasm in them for what was known as " the Germanic race ".

The Army Museum appears to be an acute form of the Fatherland Museum. In 1935 a German author wrote that " in a period of invigorated fighting spirit army museums deserved special attention ". The aim of these museums was to glorify a certain type of man—the soldier, the " guardian of the people "—and by his glorification to generate throughout the population a certain spiritual and intellectual attitude, which in fact was a mental preparedness for war.[4]

A distinguished German art historian, K. Koetchau, stated in 1933 that the time had arrived for museums to serve the people rather than students. Translated into more explicit terms, museums in Nazi Germany were declared to be one among other means of propaganda. After the fashion of propaganda the subject-matter became limited to Nazi ideology. The Fatherland and the Regional Museums illustrating Germanic past in a larger or smaller area came to dominate over other types of collections which by their contents did not lend themselves to topical political phraseology.[5] Even the National Gallery in Berlin followed the slogan of the day and arranged a series of exhibitions entitled " German Art since Duerer ", with stress laid on the Teutonic element. Authoritative speakers openly demanded that German money should be spent on German art, and that purchases of works of art by foreign masters had to come second, apparently irrespective of their intrinsic artistic qualities.

In these circumstances the informative value of museums came to be more appreciated than formal qualities. As a foreign critic wrote in 1937 :

In certain countries in which all forces of the nation converge on political action, the museum regards as its major task to act as a means of pedagogy ; it fulfills a political rôle at the expense of æsthetics and sensitiveness. . . . In these museums of social pedagogy the work of art is regarded as a historical record and is exhibited together with auxiliary material such as casts, copies of other paintings, maps and graphs.[6]

In fact, formal problems of museum arrangements which in years preceding the Nazi period had been the object of pioneering efforts in Germany, were now approached with mild interest only. The reconstruction of the National Gallery in Berlin proceeded on familiar lines ; the ceilings of the " Cornelius rooms " were lowered and a triple glazing was introduced to diffuse the top light evenly.[7] On other occasions the exhibition of a few selected specimens was recommended instead of a monotonous series of objects—again docilely repeating what reformers had been suggesting during several preceding decades. Similarly, the preference for " synthesis " arrangements, known from former times, was expressed in the combination of exhibitions of paintings with concerts of the same period which were arranged in the room of the particular exhibition.[8] On such exceptional occasions the value of rhythm, in its twofold expression by paint and sound, was valued for its own sake, and for once propaganda seemed forgotten.

REFERENCES AND NOTES

1. Schulz, F. T., " Die Notwendingkeit der Umgestaltung unserer Museen ", *Museumskunde*, Berlin, 1933.

2. Uhlemann, W., " Die historische Bedeutung der Heimatmuseen ", *Museumskunde*, Berlin, 1931.

Jacob-Friesen, K. H., " Ein Preisausschreiben zur Beurteilung der Heimatmuseen ", *Museumskunde*, Berlin, 1933.

Preuss, H., " Das Heimatmuseum im Dritten Reich ", *Museumskunde*, 1933.

Weigold, H., " Deutsche Heimatmuseen als Kulturzentren—ein Fernziel ", *Mitteilungen des Museumverbandes fuer Niedersachsen*, 1933.

3. Presker, H. G., " Heimatmuseum und Schule ", *Museumskunde*, Berlin, 1938.

Haase, O., " Der vorgeschichtliche Arbeitsraum im Schulmuseum der Stadt Hannover ", *Museumskunde*, Berlin, 1938.

4. " Eine Zeit wiedererstarkenden Wehrgeistes und Wehrwillens muss natuerlich den Heeresmuseen, Huetern der kriegerischen Vergangenheit eines Volkes, erhoehte Aufmerksamkeit zuwenden."

" Die Aufgabe der Heeresmuseen ist . . . eine bestimmte geistigseelische

Grundlage zu schaffen . . . durch Darstellung der Idee des Soldatentums . . . so die Erziehung des Volkes zur geistigen Wehrbereitschaft entscheidend zu foerdern."

Hahlweg, W., " Das Deutsche Heeresmuseum ", *Museumskunde*, Berlin, 1935, pp. 59, 61.

5. The German National Museum of Folk Culture was opened in Berlin in 1935.

The requests of the Nazi authorities that museums of Ethnology should be used for the propaganda of " racial philosophy ", emphasizing the superiority of the Germanic master race and the inferiority of " non-Aryan " peoples, and the consequences a curator had to face who did not comply with such orders, were described by a curator's wife, Mrs. Eva Lips, in a book entitled, *What Hitler did to us*, London, 1937.

6. *Catalogue of the Paris World Exhibition, 1937 ; chapter on Museums :* " . . . cependant dans certain pays modernes ou l'action politique tend a devenir le point de convergence de toutes les forces de la nation, le Musée voit son rôle social et pédagogique l'emporter de plus en plus sur son rôle esthétique et sensible. . . . Dans l'équipement social pédagogique de ce Musée l'œuvre d'art est considéré un facteur historique et completé par tout un matériel auxiliaire, composé de moulages, de copies, de statistiques, de cartes, de tableaux démonstratifs."

7. Schoene, W., " Neuordnung der Nationalgallerie ", *Museumskunde*, Berlin, 1936.

8. Schlesisches Museum, Breslau.

* * * * *

The United States. Of the tremendous work undertaken in American museums during the period between the two wars,[1] and of its continuation in the years following 1939, only some main trends can be indicated in this comparative sketch which aims above all at diagnosing conditions in the European museum and at considering possibilities of its reconstruction. Without reference to America, however, a picture of actual contemporary and of potential future museum work would lack essential features.

In his comparison between American and European museums a leading American museologist once said that the term collection may be suitable to define the European museum, but that in America the museum was an institution using collections for specific purposes. The American museum fundamentally differed from European museums. Another American expert wrote recently : " The American Museum is . . . neither an abandoned European palace nor a solution for storing . . . national wealth. . . . It is an American phenomenon developed by the people, for the people, and of the people." [2]

The steadily rising interest in museums in America can be

illustrated by quantitative facts. It was stated, in 1939, that the number of American museums had since 1914 increased from 600 to 2,500 and that new public museums were founded at the rate of one a week ; the total investment in museum buildings had since 1880 roughly doubled every ten years, except between 1910–20. In 1944, 50,000,000 people visited the museums of America.[3]

The actual performance of the museums in America and their wealth of promise for the future seem even better illustrated by certain trends of development than by sheer numbers. A main characteristic appears to be the increasing stress laid on the educational purpose of the museum, as distinct from tasks of preservation and research,[4] and the ever-widening scope of the educational function. The desire to use the public museum as a means of dissemination of knowledge brought to the fore certain methods of selection and presentation of exhibits which, even if in some cases originally devised in Europe, were in the United States afforded opportunities for development never realized elsewhere. There are the " Period Rooms " and the " Dioramas ", or " Habitat Groups ", aiming at showing the single specimen—which may be a painting or the model of a machine or a zoological specimen—as part of its environment, as distinct from the more or less coherent and monotonous series of objects. The Period Rooms of the Pennsylvania Museum of Art in Philadelphia probably are among the most accomplished representatives of their type and style. On a wider basis still the synthesis method found realization in complete architectural settings ; as early as 1909 in the Japanese Court in the Museum of Boston, and with unprecedented grandeur in The Cloisters in New York, opened in 1938.

The counterpart of the widely accepted synthesis method of presentation for the benefit of the general public are the students' galleries, available in many of the big museums, which in a manner comparable to that of a reference library offer specimens arranged according to kind and chronology. The clear division between the Habitat Group (as life-size period room or small-size diorama) on the one hand and the students' gallery on the other, together with the improved provision made for the storage of objects not permanently on show, illustrate an increasing awareness of the need for a definite specification of the function, or functions, of the museum. This awareness is mirrored in suggestions for museum buildings which were made

by some American architects. They condemn the large unarticulated, single block and recommend that the museum building should be composed of several conspicuously different parts, each serving a definite purpose, as exhibition rooms for the general public, as students' galleries for the presentation of temporary exhibitions and for storage, etc., and all together forming an organic entity.[5]

The increasing fulfilment of educational tasks by the public museum in America expresses its position as a public institution rendering palpable service to the community. This approach to the public museum was voiced as early as 1880 when, at the opening of the new building of the Metropolitan Museum, museums were declared to be social instruments making for the progress of the working millions, and it was vigorously repeated at a time when museum work made a new start in the period between the two wars.[6] The ways in which the American museums have been performing their duties are numerous. Conducted tours, lectures and museum clubs offer information on a wide range of subjects, and do so with a variety of methods. Consideration is given to individuals representing the anonymous general public and to groups of people united by a common interest—in butterflies, or in pattern of design, or otherwise—or belonging to a social or professional group—of housewives, of factory workers, of salesmen of a fashion firm, of pupils of a certain school grade, or of immigrants in the process of learning English and of " Americanization ". Though the appeal of lectures and conducted tours to the undefined audience of the " general public " seems considerable, judging by the 60,000 visitors who participated in the tours through the galleries of the Metropolitan Museum in 1936, and the 1,000 people who attended a Saturday morning course of lectures at the Toledo Art Museum in 1937,[7] some American critics regard these efforts " lavished on chance groups " as disproportionally small in relation to the existing resources and the expenditure on museums. They demand that the approach to the " heedless masses " should be replaced by educational work directed to definite groups, and preferably to groups already organized on a social or professional basis.[8]

The American museum seeks contact with people outside its building as well as inside. There is the liaison officer of the large museum going out to factories and workshops to find ways in which the museum collections may be of service as an incentive

to the design and the colour schemes of modern contemporary arts and crafts. There is the temporary loan, in form of collections or single specimens, which museums make to each other, to libraries, schools, associations of people interested in a certain subject-matter, or to individuals.[9] There is the small museum outside the big town and on the track of the motoring millions —the Historic House Museum and the Trailside Museum— provided with specimens of nature or of archæology of its site and forming part of a living organism. These types of museum illustrate a trend of development from the large to the small museum, and an awareness of the new problems of adult education in a world of increasing mobility of people and extended leisure time. In fact, a suggestion was made that the Historic House Museum may develop to a new kind of short-period holiday resort, where people, instead of whiling away their time by doing nothing, would in an easy manner absorb the cultural values enshrined in a building, in the paintings, the furniture and other objects produced and used by a vanished society. A small library was included in this suggestion and, of course, facilities for accommodation and meals.[10] A further type of small museum gaining in popularity in America is the Company Museum.[11]

Of major importance appears the tendency in America to utilize the educative qualities inherent in museum specimens and to develop new methods of instruction based on these qualities, as distinct from using specimens as supplementary illustrations of verbal teaching. The value of the specimen as an opportunity for first-hand experience and as an incentive to independent judgement is appreciated and contact with the specimen is enhanced by facilities for the visitors' activities. These consist mainly in operating tools or machines illustrating essential principles of mechanics, or in drawing and modelling.

The group of the community which so far has been receiving the greatest opportunities for activity in museums were children, but critics are now calling for increased co-operation with adults.[12] They say that " the activities of the museum . . . are far more important than its housed specimens " [13] and that it is the task of the museum " to lure our word-drugged minds " into " contemplating things as concrete objects ", in comparison with which books and lectures are referred to as " hypnotic processes of education allowing the individual to submerge his own reason in a common judgement ". The author of the above statement

further wrote : " If critical intelligence is to survive in a civilization flooded with propaganda and intellectual authoritarianism, the longing for first-hand information must be kept alive in some quarter." [14] The concrete objects in the museums, it is suggested, have the capacity for stimulating in our contemporaries the dormant capacity for questioning and experimenting instead of docilely accepting second- and third-hand judgements not really tested as to their validity and not always properly understood by those accepting them. The same writer once referred to museums as to " modern weapons " of democracy.[15]

It is characteristic of the recognition of the museum as a major educational institution that the American Museum Association has set up a special Committee on Education which in 1942 sponsored the publication of a book entitled *The Museum as a Social Instrument.* In the light of this publication and of the opinion of other expert critics of contemporary work in American museums the large-scale efforts made so far shrink to " minimum requirements of public demand " if related to capacities for future work. Enlightenment of the masses is persistently and emphatically declared to be the first and main task of the present-day museum. As defined in the past and recently, the purpose of museums is to afford " to our whole people free and ample means for innocent and refined enjoyment, and also supplying the best facilities for practical instruction and for the cultivation of pure taste in all matters concerned with the arts. . . ." " Here then is the final and basic justification for the museum . . . to be the midwife of democracy." [16]

In these American museums, of the future rather than of the present, objects of art may sometimes come to be regarded first and foremost as social documents and its historical values may receive as much consideration as the æsthetic ones, following the assumption that the average visitor to a public museum of art does not usually have the cultural background of the *connoisseurs* and private collectors of past ages who later became the patrons of the early public museum. The patrons of the present-day museum, the representatives of the great masses possessing limited education and æsthetic experience, are expected to benefit more from contact with works of art if opportunity is provided for reference to the general background of life in which they were created. The approach to objects of art through their environment points to a novel aspect in regard to subject-matter in general in American museums, which may be best summed

up in the words of an American museologist who wrote : " The museum will be concerned in its final form as much with man as a sociological being as with his scientific discoveries and his industries ".[17]

A quotation from the back page of the guide pamphlet to the Metropolitan Museum of Art in New York, of the year 1944, may contribute to the picture of the public museum as a recognized public institution in America—an institution of and for the public. The text of the final page of that pamphlet runs as follows :

> We extend to you a most cordial invitation to become a member of the Metropolitan Museum of Art. In this way it is possible for you to take an active part in increasing the value and extent of our general services and educational activities. Your membership in the Museum represents the thoughtful public support without which no public institution can prosper. . . . The Museum offers to its Members not only the satisfaction of aiding an institution of established and far-reaching usefulness but also a growing number of special services and privileges which include : . . . Annual dues for Membership are only ten dollars.

A considerable number of American museums, if not the majority, is thus supported—and so in fact owned and influenced —by the rank and file of the community.

To establish more exactly methods of selection and presentation of specimens, the quantities and qualities of exhibits of maximum appeal and benefit to visitors, controlled observations on " The Behaviour of the Museum Visitor " were instituted in 1928 by the late E. S. Robinson, professor of psychology at the Institute of Human Relations, Yale University, and have been continued by other psychologists and educationalists.[18] To these observations reference will be made later in connection with some suggestions for the reconstruction of the European museum (Appendix, pp. 246–8).

The search by means of controlled experiment for new opportunities of developing museums to their full capacities is only one form of expressing the unprejudiced and exuberant state of evolution of the public museum in America. Another signal symptom of its soundness and of its prospects for the future is the frankness with which criticism of existing museums is expressed in authoritative quarters.[19]

REFERENCES AND NOTES

1. Coleman, Laurence Vail, *The Museum in America,* American Association of Museums, Washington, 1939.

2. Coleman, L. V., *Mouseion,* Paris, 1927, p. 268.

Taylor, F. H., op. cit. (p. 150, n. 1), p. 21.

3. Coleman, L. V., op. cit. above, pp. 3, 44, 298, 671.

Taylor, F. H., op. cit. above, p. 31.

4. Ramsey, Grace Fisher, op. cit. (p. 151, n. 11), Preface:

" the conclusion may well be drawn that museums in the United States are a definite educational force, contributing to the economic and cultural life of their communities ".

Low, T. L., *The Museum as a Social Instrument,* American Association of Museums, New York, 1942, pp. 9, 21, 23.

(" . . . the staff of the early museum was chosen for its scholarship and not its social consciousness. Thus scholarly work achieved a place of prominence in museums far out of proportion to its relative importance. . . . Briefly, the purpose and the only purpose of museums is education in all its varied aspects, from the most scholarly research to the simple arousing of curiosity . . . one thing is certain and that is that museums must shift the emphasis from scholarly work to . . . popular education. Needless to say the latter may be increased without diminishing the former."

Coleman stated that as a rule in American museums one-third of available funds were spent on education and two-thirds on administration and preservation.

5. A comprehensive study of American museum architecture has been made in recent years by the American Association of Museums and a publication of this timely undertaking which is likely to influence museum architecture of the post-war period of reconstruction, in the United States and beyond, is to be expected.

6. Howe, W. E., *A History of the Metropolitan Museum of Art,* New York, 1913.

Dana, J. C., *In a Changing World should Museums change?* American Association of Museums, Washington, 1926.

Taylor, F. H., " Museums in a Changing World ", *The Atlantic Monthly,* December, 1939.

Low, T. L., op cit. above.

7. Ramsey, Grace Fisher, op. cit. above pp. 217–18.

8. Adam, T. R., *The Civic Value of Museums,* American Association of Adult Education, New York, 1937, pp. 14 sq.

9. Compare: Coleman, L. V., op. cit. above; Adam, T. R., op. cit. above, especially p. 92, concerning the " Neighborhood Circulating Exhibitions " of the Metropolitan Museum of Art, New York, which contain sets of 50–400 objects and are lent for a period of 8–10 weeks to " organizations with established quarters, a program of educational work and a neighborhood following ".

Coleman, L. V., *College and University Museums,* The American Association of Museums, Washington, 1942, pp. 12, 23.

With regard to *Museum School Services,* see Ramsey, Grace Fisher op. cit. above :—

p. 56 : " With the trend in education during the past two decades (1918–38) laying increasing stress upon the use of visual aids, it was a natural result that some of the more progressive teachers . . . should bring their classes to these institutions (museums) more and more frequently."

p. 67 : " The earliest courses to teachers . . . stressed content matter

more than method, but later the trend turned toward museum technics and application of museum materials to teaching procedures."

Compare : Weston, Ruth, " American Museums and the Child ", *Supplement* to the *Museums Journal*, London, 1937 ; Moore, E. M., *Youth in Museums*, Philadelphia, 1941 ; Powell, L., *The Art Museum comes to School*, New York, 1944.

10. Coleman, L. V., op. cit. (p. 151, n. 14), pp. 102 sq.

11. Coleman, L. V., *Company Museums*, American Association of Museums, Washington, 1943, pp. 15, 16 : " Before World War I there were not more than ten company museums. The roaring twenties—or, more exactly, the years between World War I and the subsequent depression—brought forth a score of new examples. The depression years themselves were unproductive ; but the late thirties and early forties have seen the number of company museums nearly trebled. This promises to be just a beginning. . . . Company museums are peculiarly part of this whole development because the day of the small museum has now definitely come. Little museums outnumber big museums ten to one. . . . Hundreds, even thousands, of company museums will be needed sooner or later to piece together the vast record of industry and commerce."

12. Ramsey, Grace Fisher, op. cit. above, p. 57 : " During the period from 1920 to 1930 teachers were just beginning to realize the vast possibilities in the use of the original materials and objects of museum collections for vitalizing school subjects and providing both instructors and pupils with unparalleled opportunities for careful observation."

Adam, R. T., op. cit. (p. 168, n. 8), demands that museums should extend to adults facilities hitherto offered to children only.

13. Parker, A. C., *A Manual for History Museums*, New York, 1935, p. 7.

14. Adam, R. T., op. cit. (p. 168, n. 8), p. 9.

15. Adam, R. T., *The Museum and Popular Culture*, American Association for Adult Education, New York, 1939.

16. Low, T. L., op. cit. (p. 168, n. 4).

Taylor, F. H., op. cit. (p. 150, n. 1), pp. 21–2, 52.

From the programme, of 1870, of the Metropolitan Museum of Art.

Taylor, F. H., op. cit. (p. 150, n. 1), 52.

17. Quoted by Coleman, L. V., op. cit. (p. 168, n. 1), p. 97.

18. *Publications of the American Association of Museums*, Washington.

Robinson, E. S., *The Behaviour of the Museum Visitor*, 1928.

Bloomberg, Marguerite, *An Experiment in Museum Instruction*, 1929.

Porter, M. B., *Behaviour of the Average Visitor in the Peabody Museum of Natural History*, 1938.

Melton, A. W., Goldberg Feldman, Nita and Mason, C. W., *Experimental Studies of the Education of Children in a Museum of Science*, 1936.

Melton, A. W., *Problems of Installation in Museums of Art*, 1935.

19. Low, T. L., op. cit. (p. 168, n. 4), p. 7 : " Indeed, of all the institutions, both public and private, which have flourished in this country, few, if any have wandered so aimlessly towards undefined goals as have the museums . . . it is very apparent that museums . . . still are elaborating on past procedures rather than looking to the future, and still are content with minor sallies into the field of public education."

Keppel, Dr. F. P., President of the *Carnegie Corporation*, New York, stated in his *Report of 1937*, " While the museums are at a critical point, and a hopeful one, the proposals coming to the Corporation do not go to the core of the situation. They seek aid for work along established lines when the need is to upset conventions in order to close the gap between what museums are doing and what the world expects from them." (The Report discouraged further experiment with the use of natural light in view of the fact that the

principal work of museums will be done in the evening ; art galleries were called up to offer to people opportunities for " the doing of something ", as distinct from merely viewing products of other people ; the rôle of trailside museums and historic house museums was extolled.)

Mr. F. H. Taylor, the director of the Metropolitan Museum, New York, described the present situation of the American Museum as a " dilemma ". The alternatives of development are, in Mr. Taylor's words, " temples of learning and understanding (illustrating the triumph of mind over matter) " or " merely hanging gardens for the perpetuation of the Babylonian pleasures of æstheticism and the secret sins of private archæology " (op. cit. p. 151, n. 1 ; p. 6).

* * * * *

" *Liberal Europe* " has been chosen as the term for the fourth area to be considered in this comparative sketch of museum activities during the period between the two wars. It is a collective denomination of territories not necessarily connected with each other geographically or by way of administration, yet united by the fact of not having been engulfed in a non-liberal doctrine during the period under consideration, or during part of that period. Again, as in respect to other areas surveyed in this chapter, it is the aim not to list individual efforts but to illustrate the main trends of development by some telling examples of characteristic museum work.

The new start in European museum work after the war 1914–18 was heralded by a number of reports taking stock of conditions in existing museums, of their assets as well as of their shortcomings, and suggesting ways of reconstruction.[1] In addition to statements concerned with museums of a single country, international opinion was voiced through the International Museums Office founded in 1926 and affiliated to the Institut de Co-opération Intellectuelle in Paris, which itself was an offspring of the League of Nations. The *Office de Musées* arranged conferences and offered a platform for international opinion in its journal *Mouseion* and in the symposium entitled *Muséographie*.[2] Another collective declaration of international museum experts was edited outside the League of Nations circle in 1937 in Paris under the title *Musées* and as a publication of the series known as " Cahiers de Sciences, de Lettres et d'Arts ". These reports and statements were unanimous in some of their main considerations. In their light the very wealth of the European museums appeared as a liability preventing the development of the museum into a sound public institution.

In the adaptation of Continental museums from once private collections of princes and scientists to public institutions a marked

feature had been the increased accessibility of the exhibits. Availing himself of the privilege of viewing the treasures from which his ancestor had been barred physically, the European whom the upheaval of a four-years war had carried some distance farther on the path towards democracy, mentally still found himself more often than not debarred from the exhibits in museums. The sheer quantity of objects was bewildering. In a large museum several former private collections were combined to a *Mixtum Compositum* lacking in coherence and were as a rule presented in monotonous rows with scarce labelling, from which none but the minority of expert students of special branches of learning could benefit. Efforts towards improving the situation had to a considerable degree been frustrated by the tremendous growth in the quantity of specimens. At the time of its opening the Prado in Madrid had contained 300 pictures ; a century later its contents amounted to about 3,000 items. In 1793 the original museum in the Louvre in Paris housed 650 objects ; the catalogue of 1933 listed 173,000 items.[3]

Various remedies were recommended to instil vitality into the barren wealth of the European museum : (1) co-operation between museums, which would relieve the large museums of their surplus and offer new opportunities to provincial establishments, (2) centralization of administration on a national basis that would facilitate co-operation, (3) division of the large museum into three main parts—exhibitions, partly temporary, for the general public, galleries for students, and storage rooms for objects not on exhibition, (4) definiteness of purpose of each museum, and in the case of the small museum a limitation of contents to a special subject, connected, if possible, with the locality.

The situation of the European museum after the First World War may be best summed up in the following words of an English expert :

> Until the end of the period brought to a close by the War, the prime energies of those responsible for their direction were devoted to acquisition. Collecting mania was prevalent. . . . It is, however, no longer the principal function of a director. A new orientation makes the intelligent use of the art gallery's and museum's resources even more important than their increase. In other words, the problem of distribution is the first problem which we have to face—the distribution, not of course, of the objects themselves, but the diffusion of the influence they wield. . . . Our principal task, in short, is to make the man in the street conscious of his possessions, and to help him to use them.[4]

In practice the recommended far-reaching reforms found realization on a small scale and in a half-hearted manner only.[5] Changes were undertaken in numerous museums but as a rule they concerned details, and mostly details of display. There was throughout all European countries the tendency to " thin out " exhibits. Instead of two or several rows of paintings a single file was presented and greater distances than before were allowed for spacing the single pictures. Similarly, sculptures formerly heaped together were now exhibited in a manner affording greater effectiveness to the single object. The lighting of exhibition rooms and cases received much attention. In some museums an impression of greater harmony was achieved by a change in the style of cases, which were sometimes built into the walls, and by the careful choice of backgrounds, in plain paint of neutral shade or in some special material. Another way of enabling visitors to assimilate impressions in a large museum was by means of sub-dividing spacious halls into bays. Further increase in clarity was sought by the introduction of a more definite sequence, chronological or geographical, into the contents of a series of rooms.[6]

If the total achievement about the time of the outbreak of the Second World War is to be considered, the state of the rank and file of the public museums of " Liberal Europe " may be indicated by quotations from statements of two authoritative critics referring to British museums. One of them wrote : " It may be accepted as a fact that the uses and functions of museums and art galleries are not generally appreciated ",[7] and the other : " Drift, neglect, decay—these are the material features of the majority of our provincial museums and art galleries ".[8] Both these critics were at the same time aware of the progress made in the recent past in some museums. In this interpretation of the main trends of development, whether numerically outstanding or not, special interest is due to a few pioneering efforts which for all their differing features nevertheless seem to belong to the same stream of development and to hold out promise for the future.

Two main features mark these pioneer-museums : the educational bent and the functional manner of display. These features were prominent in the Science Museums in London and Munich, the Imperial Institute in London and in the Hygiene Museum in Dresden, all rooted in the pre-1914 era but fully developed after the war. There was the Museum of Sociology

and Economics in Duesseldorf and the Museum of Social Science in Vienna. The contents alone suggest an increasing awareness in " liberal Europe " of the rôle of the Public Museum as an instrument of instruction of the rank and file of people on problems essential in their epoch. The museums were means of keeping the general public in touch with the bearing of science on their lives. There, materials and articles of everyday use were shown to the public in new perspectives, against the background of historical development which had yielded progress in a process of toil and adventure. Subject-matter ranged from agriculture to airways, from refrigeration to noise-abatement, from healthy diets to information on hygiene for the expectant mother, from problems of human labour under primitive conditions of culture to those in the industrial era, from problems of population to those of production and consumption of raw materials. In the Ethnological Museum at the Trocadero in Paris, which was reorganized in the 'thirties and in one of its departments came to be known as *Musée de l'Homme*, a new approach to ethnology was revealed. The connotation of superiority on the part of White Man—intrigued by the strangeness of men of other climates or filled with an ambitious responsibility for those without command over machines—had disappeared and had been replaced by a desire to gain better knowledge of the species man in general ; of manners of life of different peoples, of their ways of controlling nature as well as problems between individuals, and within the individual. It would seem as if the demand for folk museums voiced during this period outside the Fascist area could be associated with the motives which led to the establishment of the 'Musée de l'Homme' in Paris, and as if both illustrated a broadminded matter-of-fact interest in aspects of human life, which may be best referred to as sociological and psychological, as distinct from national. Whereas in the ethnological museum stress is laid mainly on non-European present-day groups of primitive material culture, in the folk museum the culture units are European groups of the pre-industrial era.[9]

In the museums of science products of nature were the focal points of interest, even if their relation to human life was increasingly stressed in the progressive museum. In connection with technological specimens, however, human problems were gaining in attention and were occupying a major place in the museum of sociology and economics. In the museums of hygiene and medicine Man was the central point of departure, though mainly

in his physical aspects. In the ‘ Musée de l'Homme ’ the main subject-matter was the cosmos of the human being : his body and mind, the individual and the community. To the present writer this tendency, even if yet only slenderly illustrated, appears symptomatic of a growing awareness among European museum workers of the urgent need of our contemporaries to acquaint themselves with human problems, in the collective sense of sociology, and with the psychology of the individual. This tendency marks a new departure distinct from the majority of museums of preceding periods, or of the same period but of more traditional character, where the subject-matter consisted of either minerals or machinery, or paintings, or pottery, and where the rôle of the objects in human life was shown incidentally, if at all.

The educational value of these progressive museums was based not only on their contents, closely connected with current problems, but on methods of display adapted to the requirements of non-scholars. In the Science Museums in Munich and London efforts were made to abolish the case alienating the exhibit from the spectator and to create opportunities for visitors to handle and to operate pieces of machinery—to acquaint themselves with what was offered to them by way of experiment and first-hand experience. In the Hygiene Museum in Dresden, in addition to various lectures, practical courses were arranged for expectant mothers, in dietetical cooking and first-aid. In these museums the selection and presentation of specimens was based on the method of synthesis ; objects were integrated into meaningful sequences, and coherence of configuration was appreciated. In the Imperial Institute in London raw materials and products of the Empire were presented in the form of a purposeful story which would “ arrest, hold and intrigue the visitor's attention and strike some chord of experience in his mind ”. The exhibits proper, whether samples of raw materials or articles illustrating stages in industrial processes, were supplemented by photographs and dioramas evoking the experience of complete environments, of types of men at their activities, in their homes and their localities. A similar method, on a larger scale, was adopted in the ‘ Musée de l'Homme ’ in Paris, as may be illustrated by one temporary exhibition. The subject-matter was “ The Sahara ”, and a complete experience was called up by the co-operation of several otherwise departmental subjects, of pre-history, geology, geography, botany, zoology and ethnography. The Wellcome Medical Museum in London testified that synthesis was a

method not necessarily limited to popular education. This museum, which primarily was destined for students, aimed at giving a survey of human diseases from their causations to their pathological symptoms, their treatments and methods of prevention. Again, photographs and dioramas supplemented the exhibits proper, and all together tended to tell a consecutive story, with certain objects acting as high-spots of a dramatic performance. Verbal information varied from short labels to literature contained in files within the particular bay.[10] " Relationship ", in form of comparison or of evolution, was the keynote in the presentation of the information in the Museum of Social Science (Gesellschafts und Wirtschaftsmuseum), Vienna.[11]

On a small scale the method of synthesis was used in numerous other museums of Liberal Europe. On the whole, the period-room and the diorama seemed to come second to less naturalistic manners of integrating a number of objects into meaningful units. A zoological group would, for instance, be presented not in its static character, as a part of its natural surroundings, but with stress laid on a particular event or function of the species. The Museum at Maidstone, in England, showed the migration of birds by presenting several specimens of a certain species against the background of a map on which the routes of migration were indicated. A case in the Royal Scottish Museum in Edinburgh illustrated the ways in which different animals move—again a problem or principle as distinct from isolated facts. The Nordiska Museet at Stockholm presented samples of products of a regional area in Sweden against the background of a map on which the places of production were marked, with each sample connected by a string to its place of production.

Museums of art, and of arts and crafts, were less accessible than others to progressive methods. One of the rare exceptions was the ' Barock Museum ' in Vienna, where paintings, sculpture and furniture of *baroque* style were housed in a fine building of the period. The result was an articulate expression of the essence of Austrian culture, that combination of sophisticated court manner, mysticism of Roman Catholicism and a singularly artistic temperament of people at the watershed between the West and the East. Even to the uninitiated the Barock Museum was likely to impart a message. As a well-informed critic of this museum wrote, " it had transcended the limitations set to museums in the nineteenth century, which were means of exhibiting single objects of art . . . it represented an artistic creation

in itself".[12] It was indeed an orchestrated whole, though it contained no period-rooms proper. There were no wax figures in costumes of the period and yet there existed the atmosphere of an epoch, of a locality and of the dominant social groups of the culture. In a more explicit manner art was connected with its social background in a temporary Rembrandt exhibition in Amsterdam where simple pictorial charts illustrated the complex factors of economic and social conditions of the period. Photographs of the master's paintings were part of the historical records; original paintings were accessible in the local museums.[13]

Thus the museum work of Liberal Europe during the period between the two wars manifested itself in two ways widely differing from each other: a substantial body of progressive thought and some outstanding pioneering efforts stood out against a mass of half-hearted measures lacking in preciseness of purpose and a still larger background of complete stagnancy. *The ensuing result was that in its sum total the European museum up to 1939 did not develop to an institution vital to the community.*

It seems noteworthy and characteristic of the state of indecision prevailing in the museum work of Liberal Europe that while a few museums established remarkable facilities for adult education, the capacities of museums as an aid in education at school level remained on the whole undeveloped and in fact an unsettled argument among museum workers. In a summary manner it may be said that efforts at the utilization of museums for the benefit of young people were more prevalent in Great Britain than on the continent of Europe, where again the Hague seems to stand out for its interest in and its systematic approach to Museum School Services.[14] Nowhere in Liberal Europe did Museum School Services, however, develop to such originality or scope that could be considered as an important educative influence. As in respect to their usefulness for the general public so as aids in the education of children the majority of these European museums seemed to suffer from the very wealth of their materials not adequately adapted to any purpose.

Three main questions seem to emerge and to call for an answer. Why were the advocated reforms—for centralized administration, for co-operation, for a clear definition of purpose and tasks—translated into practice only hesitatingly and only to a very limited extent? How is it to be explained that the theory of reform suggested purposiveness without articulating a programme of tasks? What caused museums of science to take the lead in

progress while galleries of art, museums of archæology, of arts and crafts, i.e. of " Humanities ", remained satisfied with cautious variations of established tradition ?

It would seem as if the men who recommended reform were not equipped with power to take action commensurate with the propounded theories. The authorities who actually governed the museums may have differed widely in character and composition but were characterized by the fact that non-experts among them were as numerous, and sometimes perhaps more numerous, than experts, and by lack of the welding and propelling influence of public opinion, encouraging or critical.[15] Whereas schools were gaining in character as public institutions and their efficacy was permanently tested by the achievements of their pupils, in examinations and in relation to professional tasks, so that inadequate results would sooner or later lead to serious scrutiny on the part of the authorities and of the public, the museum, another public institution, did not enter within the bounds of immediate reality and on the whole existed, thrived or degenerated, without being truly subjected to investigation and even without standards of measure for its services being established. Neither visitors' books in which the attendance is supposedly registered nor the stricter control of the turnstile at the gate of the museum which mechanically records the number of visitors are true indications of public opinion. At their best, they record facts concerning the quantity of visitors, but cannot render the degree of satisfaction or dissatisfaction of the people who came, and the motives which caused others to stay away. Yet efficient or not, museums in considerable numbers persisted since the provision of funds for their maintenance was largely a matter of impersonal administrative routine or depended on the vagaries of individual charity rather than on a true correlation with service rendered to the public. Indeed, the effects of a museum on visitors were revealed only under the exceptional circumstances of controlled experimental exhibitions in which the reactions of people were tested. Experimental exhibitions set up in the years 1942–3 by the present writer afforded some insight into the views on museums of a cross-section of the public, into the motives of people enjoying visits to exhibitions and benefiting from them as well as into the misjudgement, bewilderment and depression caused by certain modes of selection and presentation of exhibits which still prevail in our museums (see Appendix, pp. 243, 244, 249).

No doubt none among those responsible for the European museum consciously desired that museums should have anything but beneficial effects on the minds of people, but as long as the function, or functions, of a public museum remained only vaguely defined, a playground was available for the expression of leanings which on occasions of more stringent reality remained repressed or were adjusted to circumstances. The mirage-like existence of some of our museums, however, would occasionally awaken in people retrogressive tendencies of mind and they would seek satisfaction in experiences of hoarding and of boasting—in palace-like museum buildings which would stand for symbols of respectability and be identified with an enhancement of the personal dignity of the men who gave orders for these structures to be built, in accumulations of objects which more often than not were of indifferent quality and of negligible market value, and in manners of display which were distorted versions of a private connoisseur's fatally outgrown collection. In addition to the "palace-fallacy", the "laboratory-fallacy" persisted and exercised a hindering effect on reform, for however justified the selection and presentation of specimens in a laboratory fashion may be for specialized students, it has not proved to be an adequate approach to the education of the general public and of children.

The answer, as the present writer conceives it, to the first question, " Why the proposed reforms were not fully carried out ", may be summed up by suggesting that the theory and practice of museum work remained divorced because the public museum of Liberal Europe never became an integrated part of the life of its community.

The second question, " Why purposiveness was suggested as a general principle without a programme of definite tasks being drawn up ", seems to touch upon an even more important, if not the crucial problem. It would appear that the lack of a definite programme in the sphere of the museum reflected the absence in general of any articulate programme, both of ideas and action, in Liberal Europe. In general, we went only as far as stating our disapproval of certain contemporary creeds and principles, but a mere negation does not constitute a programme.

The third question, " Why museums of science proved more progressive than museums of art and archæology, etc.", is a continuation of the second one. In the sphere of phenomena of nature and of technology, there was no hesitation in presenting matters in a clear relation of cause and effect, but where human

affairs were concerned, especially social aspects of human life, the ruling code, consciously or unconsciously adopted, seems to have been moulded by a reluctance to allow problems in the forefront of contemporary life to enter the halls of the Muses, and of their sacerdotally rather than socially minded guardians. Hence, as a rule, works of art and archæological specimens were shown reft apart from their background and in a manner of display which at best emphasized formal qualities of single exhibits, or either technical or informative aspects, which would appeal to students, but not be altogether understandable to the less initiated person whose interests were steeped in the everyday reality outside the museum.

* * * * *

The case of the museum of Liberal Europe, which is the main theme of this essay, and the reasons which as yet seem to have prevented its evolution to a soundly functioning public institution gain in clarity if considered in conjunction with contemporary work undertaken in the museums in America, Soviet Russia and the Fascist States. Instead of offering to the reader a summary comparison of the efforts and achievements of the four areas under consideration, an invitation is extended to him to weigh the comparative facts himself, in preparation for a further discussion in the following chapters in which some ways of reconstruction of the public museum will be suggested.

A brief account of the opinions on the contemporary museum of a cross-section of visitors, which were expressed in the course of the previously mentioned experimental exhibitions, may contribute to the assessment of the museum of Liberal Europe. Quotations from visitors' statements are appended, pp. 238–243. In this context it will suffice to point out the main outlines of their views, and to relate these views to the functions which collections in past times seem to have fulfilled apparently in accordance with the wishes of their contemporaries. It would seem of prime importance to gain first-hand knowledge of the opinion of the public in what respect, if in any, their approach to, and expectations of, the public museum are similar to those of past generations.

The visitors interrogated in the course of the experimental exhibitions have unanimously condemned the overcrowding of museums with specimens : they have condemned hoarding.[16] The lack of response to the sight of a tangible and measurable

hoard on the part of our contemporaries is presumably connected with the fact that no collection, if exchanged into money, could provide the means required in an emergency situation of a community, as for instance was provided for the purchase of men-of-war in ancient Greece by temple collections of silver-smith-work and statues clad in silver. Precious metals in a modern community are stored in state banks and no " static " hoard on such a limited scale as may be embraced by the human eye equals the sums invested in present-day enterprises.

The visitors to the experimental exhibitions have condemned over-opulent staircases, high-ceilinged halls and pompous decorations. Their views implied that a visitor to a public museum does not seek social aggrandizement, if indeed prestige in our society is at all seriously expressed by an exuberance of stucco. This should not be misinterpreted as indifference to a variety of styles and be rather understood in the sense of a new feeling of propriety. The person who may oppose the erection of a new museum building in the style of a mediæval cathedral or a French château may be moved and stimulated when visiting genuine buildings in those styles.

To dwell upon the lack of response of a visitor to a public museum to objects illustrating superstitious beliefs would seem to be superfluous. Faith in superhuman powers has not been eradicated from among human emotions but is hardly in accord with the state of mind of a visitor to a public museum.

Response to exhibits connected with a certain group of people seems to exist potentially, though the " group loyalty " of the visitors under discussion appeared to belong to humanity as a whole rather than to national or other groups.

It remains to consider the visitors' curiosity and inquisitiveness, and their desire for emotional experience in connection with works of art. Undoubtedly our contemporaries are possessed by these drives, but they do not obtain satisfaction in the majority of the existing museums.

Judging by the experience offered by these experimental exhibitions, the rank and file of European visitors to the public museum is in agreement with the trend of reform in progressive museums. In fact, the layman appears to be a more radical reformer than the expert, though he may not always be able to articulate his proposals in a detailed manner. Nevertheless his counsel ought to be sought in the reconstruction of the museum of the future; and public opinion in a wider sense still should, it would

appear, partake in this task of reconstruction. Indifference to the museum may be permissible as long as the benefits derived by people from its existence are not measurable and remain an open argument, but a public institution which is a potential source of ill-effects on human minds is a cause for alarm and vigorous action. If the experimental exhibitions referred to before may be regarded as indications of experiences of visitors in the majority of our existing museums, the effects of these museums are adverse to our aims of heightening the standards of general education and of training people to responsibility and judicial criticism.

An exhibition overcrowded with specimens and lacking in explanation tends to encourage illogical thought processes resulting both in factual misinformation and in the habit of inaccurate, unbalanced judgment ; it damps the interest in learning ; it produces a state of general irritation that may affect actions of people some time after the visit to the museum. It might be arguable whether the lack of response of people to an exhibition of paintings or of South Sea implements, or otherwise, is a matter for general concern, but the fact that visitors to public exhibitions of any kind experience bewilderment and are made to feel despondent as to their capacities to understand information should be a matter of grave concern to anybody interested in human behaviour and in human fitness for citizenship as a basis of democracy. Though originally brought into existence by an urge for human progress, European museums, in their preponderant majority, have not developed into a true asset of our society. Indeed, many museums are but a liability, and they are so in the presence of the tremendous spiritual wealth which they potentially enshrine.

REFERENCES AND NOTES

1. England :—1919. The *Commission on Adult Education*, set up by the Ministry of Reconstruction, issued an *Interim Report on Libraries and Museums.*

1920. The *British Association* for the Advancement of Science published a *Report*, begun before the war, on museums in relation to education.

1928. An *Interim Report of the Royal Commission on National Museums and Galleries* was issued, together with a substantial volume containing oral evidence given before this Commission by a number of individuals and representatives of bodies interested in education.

1929. *Final Report of the Royal Commission.*

1928 and 1938. *Reports on the Museums and Art Galleries of the British Isles* (other than the National Museums) made to the Carnegie United Kingdom Trustees, the first by Sir Henry Miers and the second by Mr. F. S. Markham.

An important contribution to the efforts after the 1914–18 war which tended to adjust public museums in Europe to demands of reality is connected with the name of Baron Sudeley (C. D. R. H. Tracy) who urged the appoint-

ment in British museums of guide lecturers for the benefit of the general public and who published his views in an article entitled " The Public Utility of Museums " in the *Nineteenth Century*, July, 1921. In this article he reminded his contemporaries that the desirability of public lecturers in museums had already been recommended by Mr. Disraeli and he paid tribute to the great educational work undertaken in American museums. The subject of guide lecturers in museums was discussed in the House of Lords on the 9th May, 1921. In the British Museum guide lecturers had been introduced in 1911.

Holland : *Rapport der Rijkscommissie van advies in zake reorganisatie van het museumwezen hier te lande ingesteld oij koninklik besluit.* Gravenhage, 1921.

Germany : Valentiner, W. R., *Umgestaltung der Museen in Sinne der neuen Zeit*, Berlin, 1919 ; *Kunst und Kuenstler*, Berlin, 1919, with articles by several contributors ; Wulff, O., " Lehrsammlungen, eine Neuafgabe der Deutschen Museen ", *Museumskunde*, 1920.

Austria : Tietze, H., *Die Zukunft der Wiener Museen*, Vienna, 1923.

Italy : Sapori, F., " Reorganisation des Galeries et Musées Nationaux ", *Mouseion*, Paris, 1927.

Rumania : Tzigara-Samurcas, A., *Museografie Romaneasca* (with a summary in French).

Compare for France and Spain, below, no. 3.

2. The *Muséographie* was published in 1934, following an international conference in Madrid on the subject " The Architecture and the Management of Museums of Art ".

3. " Le Plan d'extension et de regroupement méthodique des collections du Musée du Louvre ", *Bulletin des Musées de France*, Paris, January, 1934.

Alvarez de Sotomayor, J., " La transformation récente du Prado a Madrid ", *Mouseion*, Paris, 1927.

4. Rothenstein, J., *The Museums Journal*, London, October, 1937.

5. The illustrations contained in the two volumes of the *Muséographie*, op. cit. above, give some evidence of the progress achieved in the museums of Europe during the period of reconstruction, roughly between the end of the nineteenth century and 1934, and of the limitations of the evolution. See, for instance, vol. I, p. 28, the New Museum, Hague, and vol. I, p. 31, the Far East Museum, Stockholm ; in both these museums presentations exist which seem to be on the line of students' galleries with certain allowances made for the general public. The miscellaneous crowd of objects has been replaced by a sober atmosphere of order, but in the present writer's view students proper will probably find the specimens still too crowded and the layman is likely to demand a sequence of greater coherence of evolution or otherwise. Thus, the compromise between a students' gallery and an exhibition room for the general public has even in these progressive museums not achieved real success. More successful in the students' galleries would appear to have been the Fitzwilliam Museum, Cambridge, and the Musée Guimet, Paris, pp. 427 and 237.

6. See *Muséographie*.

7. Markham, F. S., op. cit. (p. 181, n. 1), opening paragraph ; further, p. 166, " . . . nearly 250 (smaller) museums (in Britain) (one in three) . . . require drastic reorganisation ".

8. Read, H., " The Museum Scandal ", *The London Mercury*, London, February, 1939.

9. Considerable interest in Folk Museums was shown in England, where for instance in 1938 the York Castle Museum was opened, a collection of Yorkshire Bygones housed in an old building previously used as prison. Local manufactures are illustrated in this museum, and part of it is represented, in the fashion of the Scandinavian open-air museums, by shops, a postal establishment and a coach office. A scheme for a National Folk Museum formed part of the Report of the Royal Commission of 1929, but was not

translated into practice in the unsettled period of the 'thirties. As Dr. R. E. Wheeler explained at a conference of the Museums Association in Bristol, in 1934, it was the plan to provide a single coherent sample of one type or another of the English village, with the aim of demonstrating the main phases in the development of English social life prior to the industrial revolution. It seems of interest to note the difference between this proposed " entity " arrangement from the " miscellanea " of Skansen, where various buildings and exhibits which originally had not belonged together were assembled. On a small scale England has its " Folk Park " in New Barnet. A plan for the establishment of an open-air folk museum of Wales, at St. Fagan's Castle, has been announced. It is to be an extension of the National Museum of Wales, in Cardiff. Another Folk Museum was recently established in Bristol.

A short time before the outbreak of the World War in 1939, plans for the foundation of international intellectual headquarters at Geneva were under consideration and their name was to be *The Mundaneum.* The idea proposed by Paul Otelet was translated into terms of architecture by Le Corbusier. The museum, which was to occupy one in a series of buildings, was planned in form of a stepped pyramid, with galleries gaining in length towards the lower part of the structure. A lift was designed to take the visitor up to the top of the pyramid where the exhibition began : a review of the evolution of human culture which ended at the door of the museum through which the visitor left the building and faced the street presenting an aspect of human culture at the very moment.

10. Daukes, S. H., *The Medical Museum,* based on a new system of visual teaching, London 1929.

Daukes, S. H., " The Historical Medical Museum—its Future and Possibilities ", *The Museums Journal,* London, May, 1944.

11. Neurath, O., *The International Picture Language,* London, 1936.

Neurath, O., " Bildhafte Paedagogik im Gesellschafts—und Wirtschaftsmuseum ", *Museumskunde,* Berlin, vol. III, New Series.

12. Tietze, H., op. cit. (p. 182, n. 1).

The recent arrangement in a style of synthesis of some rooms in the Louvre has been described in the *Bulletin des Musées de France,* Paris, June, 1938. Objects of a variety of raw materials and styles were combined to reproduce a general impression of the character of a particular period of history. These exhibitions were intended to appeal to the general public rather than to specialist students of history.

13. The exhibition was set up by *The International Foundation for Visual Education,* and was shown in the Department Stores Bijenkorf in Amsterdam, Rotterdam and the Hague. This exhibition represented a continuation of the work done by O. Neurath and his collaborators in Vienna, who at the time lived in Holland.

14. Lefrancq, J., " Le rôle social des musées : un exemple Belge ", *Mouseion,* Paris, 1927. Markham, op. cit. (p. 181, n. 1), pp, 12, 114 sq., summed up the situation in Britain with regard to services for children by writing that of the about 800 existing museums, 150 made arrangements for children ; 80 museums were loaning specimens to schools. This *Report* offers with some detail a description of the existing museum services for children.

Museums and the Schools, Board of Education pamphlet, London, 1931.

In the years following the publication of this Report, local educational authorities have been showing increasing interest in the use of museum specimens as aids in the education of schoolchildren, and the number of museum services for children has grown. Efficiently organized loan services of specimens to schools have been set up, for instance, in Leicester and in Derby. In

Leicester, where the local museum is the centre of activities, the children have the benefit of not only having specimens sent to schools, but being offered special facilities in the museum.

" There is clearly room for experiment in children's museums of various types, and the paucity of good museums for children is one of the more serious drawbacks of the existing service . . ." wrote Sir Henry Miers in 1928 in his *Report on the Museums . . . of the British Isles*, p. 42. Though it would appear that this statement in principle still obtained till 1939, the continent of Europe was behind Britain in its development of Museum Services for Children. A systematically organized educational service existed in Belgium, where, on the model of American museums, children were given history lessons in the museum, were offered opportunities for sketching and for playing games. In pre-Nazi Germany educationalists held a conference on the co-operation between museums and schools and urged that museums be used not only for an *élite* of research workers but for the great masses of schoolchildren as well (' Museum und Schule ', Zentralinstitut fuer Erziehung und Unterricht, Berlin, 1930). Museum workers, however, did not always encourage the utilization of museums for children. In an international conference on " The Educational Rôle of Museums ", in Paris, 1927, the German delegates declared that their experiences with popular lectures in museums had not been satisfactory. They suggested that the scholar-curator should lecture to teachers and that these expert pedagogues should pass the information on to children. The Dutch delegate recommended that children should be taken first to museums of natural history, then to museums of history (archæology), and finally to museums of art. A more progressive attitude towards the use of museums for the diffusion of knowledge was shown in Germany by the museums in Essen and Mannheim. Very definite in his appreciation of the educative value of the museum was W. R. Valentiner, who claimed that among specialist workers on the staff of a museum should be expert educationalists. In France, children were among the numerous lay-visitors who attended classes at the Louvre. Compare *Mouseion*, Paris, 1927, pp. 251 sq.

15. Neurath, O., op. cit. (p. 183, n. 11), (1936), wrote, p. 68 : " Every expert is pleased to have a great number of exhibits and details. But museums are not for experts, they are for the public. At present there are no representatives of the general public to take care of the interests of the men who come to see and to get some knowledge."

16. Blackburn, J., *Psychology and the Social Pattern*, London, 1945, pp. 10–11 : " Again, acquisitiveness is often merely a reflection of social conventions. Even in our own society it has been shown that the collecting mania has become much less prevalent among young people within the last fifty years as the number of other possible ways of spending one's time and the number of other amusements has increased." Compare *The Psychological Review*, Princeton, 1927, Lehman H. C., and Witty, P. A., " The Present Status of the Tendency to Collect and Hoard." According to this article only 10 per cent. of young people at the ages between 8 and 22 were actively engaged on making collections, mainly of stamps and birds' eggs, whereas about the year 1900, 90 per cent. of a homogeneous group had chosen collecting as one of their leisure activities.

PART II

THE TASKS OF THE MUSEUM IN EDUCATION

Some Suggestions for the Future

CHAPTER I

MUSEUMS—TO WHAT PURPOSE?

The prospects of the museum to attain the state of a soundly functioning institution depend in the first place on the clarity of the definition of its potential functions : unascertained targets cannot be aimed at with precision.

A communication of any kind, whether in the form of a book or a lecture, a newspaper article or a film, may be qualified under the headings of its subject-matter and its potential recipients ; in addition to their informative values the contents are made more specific by the formal qualities of their delivery and last, but not least, by the general mental attitude of the writer, speaker or producer, by his *credo*, which in its turn is likely to stand in communication with his environment. It is beyond argument that a book designed to serve both as a means of information on a variety of subjects only loosely connected with each other and to appeal to people with varied cultural backgrounds and interests, to scholars and to laymen, to adults and to children, is an insoluble proposition. So is an exhibition which aims at answering a similarly multiple and vaguely defined purpose. Just as a book is written for a certain group of readers and a lecture prepared for a certain audience, so an exhibition cannot adequately be set up without some knowledge of its potential visitors. Just as a book or a lecture possesses a structure, so an exhibition or a museum as a whole must have a configuration, implying to some extent at least coherence both of contents and appearance. Finally the *credo*—its articulate vitality, its indecision or complete absence—of the author, the speaker or the person, or persons, responsible for the selection and presentation of specimens in a museum or an exhibition, is decisive for the character of the communication. Three people may for instance

set up an exhibition of minerals, maybe with similar sets of specimens, and each may approach the task with a different end in view, in accordance with his general assessment of the importance of matters and their order of magnitude. One person may set up an exhibition of minerals to document the glory of God's creation and to animate piety in men, another to encourage scientific inquiry, and yet another to offer information to farmers and merchants which may be profitable in the exercise of their vocations.

At all times a communication will be shaped by the four aspects of subject-matter, form, general mental attitude of its producer and the character of potential consumers, but the stress may shift from one to another, in accordance with the general pattern of life and the main problems of the epoch. It is hardly incidental that numerous existing museums are mainly, though not accurately, defined by their subject-matter—as museums of natural science, art, arts and crafts, etc. The majority of these museums were foundations of the nineteenth century, of an era in which the prime problem was the increase of human control over the environment by means of the vigorously developing sciences of nature; even manifestations of man, in form of works of art, of arts and crafts, of archæological and ethnological specimens, were approached in a spirit of inquiry developed by natural science, aiming first at the observation of single facts accessible to the senses of the observer. Hence, in our museums the stubbornly surviving tradition of presenting quantities of specimens almost unrelated to each other, a tendency greatly encouraged by manners of arrangements in collections in preceding periods.

In the present crisis of human history the *credo* of the person responsible for a communication and its potential receivers ought to be decisive in the reshaping of museums. The first and main function of the public museum is to aid the adaptation of great masses of people to an environment characterized by an unprecedented rate of change in all conditions of life. For several generations, in fact since the industrial revolution, a high and ever-increasing rate of change has been a mark of our civilization. Tremendous changes have been taking place in two dimensions, through an acceleration of development in terms of time and through the growth of our environment owing to the reduction of distances by new means of communication. Few people, however, have fully adapted themselves to the transfer from

parochial to world citizenship.[1] The possibilities of successful mass education have in recent years been evidenced by results obtained in countries under totalitarian rule. " Liberal Europe " —or the liberal world—has yet to prove its worth in the field of modern mass education. The great task of stating facts and values of basic importance to us, and of shaping them into a manifold educational programme, awaits solution.

Whatever the number of facts taught and learned may be, they will hardly be sufficient to match every possible situation in the complexity of life of a present-day producer, consumer and citizen. In addition to offering facts, education should afford opportunities for a training in such responses and attitudes of mind as are likely to be required from men in this new world. Alertness needs sharpening, awareness widening and imaginativeness heightening. A sense of values must be linked with knowledge of facts, and above all there should be nurtured the consciousness by man of being a human being, with all the potentialities and responsibilities implied.

The possibilities of training people in intellectual and emotional habits have in the recent past been demonstrated all too clearly in the totalitarian states, and the struggle against indoctrination of man with evil is not likely to succeed far if conducted in the *laissez-faire* manner of an outdated liberalism. The Liberalism of Our Day requires a programme and methods not less defined and not less systematic than totalitarianism, for all the differences of aims which separate these two worlds. Two quotations from Karl Mannheim's *Diagnosis of Our Time* may indicate the shaping of a new liberal *credo*: " Militant Democracy " and " Planning for Freedom ". The targets of development implied in these terms, as the present writer understands them, are, on one hand, the utilization of all potentialities offered in a mechanized civilization to collective production and distribution of matter and, on the other hand, scope for the growth of the individual mind. A colossal programme of education can be evolved under these headings.

Owing to the efforts of generations of students the aids to adjust the " milieu intérieur " of the human mind to the material situation of the " milieu extérieur " are amply available. A wealth of knowledge exists concerning the materials and the peoples of the earth. In practice, however, this wealth is accessible only to fractional minorities of experts—economists,

sociologists, anthropologists or psychologists. Most members of the populations in the civilized countries are consumers of goods internationally produced, but possess fragmentary, ill-balanced or no knowledge at all of international markets, and form judgements on and have dealings with a multitude of strangers without information on the principles of human behaviour. The problem awaiting solution concerns the methods of imparting information on intricate subjects to non-specialists : to adults whose time and energy are devoted to vocational tasks first and to study second, and whose capacity for learning is not always equal to that of professional students ; and to children whose natural impressionability fades if confronted with all-too abstract matter. Numerous efforts are being made to adapt methods of study, both in schools and in adult education, to existing demands. There remains considerable scope for a contribution by the museum.

We are at the very beginning of a systematic inquiry into the potentialities of the museum as a means of communication, which will become amenable to purposeful application only with the aid of controlled experimental exhibitions and tests concerning the behaviour of museum visitors. Judging by the results of the experimental exhibitions referred to before the following *educative qualities of the museum* may be tentatively suggested :

(*a*) The visual method of exhibition conveys to the majority of adults and of children a greater number of facts in less time than if these were expressed by words, written or spoken. The visual and tactile qualities of specimens, their " reality ", make an emotional appeal to people which seems to increase their sensitivity and capacity to assimilate information of considerable complexity and subtlety.

(*b*) The visual method of exhibition is suitable for presenting a number of facts simultaneously, in a synthesis, and thus (*α*) each single fact in proper proportion and perspective, (*β*) with stress laid as much on the relation between facts as on each of them.

(*c*) In addition to imparting facts to people, the museum offers opportunities to challenge them to active co-operation in the process of learning and to stimulate in them certain attitudes, such as the faculty of observation, logical thinking, responsibility and imagination. In its own way the museum may, better than other media of study, offer to people experiences which

in the past were acquired by the growing generation through observation of events in their environment. A carefully selected set of specimens in a museum may act as a semblance of an environment, to be viewed or to be used as a scene for activities.

REFERENCES AND NOTES

1. " The recent shortening of the time-span between notable changes in social customs is very obvious. . . . the sporadic inventions of new technologies, such as the chipping of flints, the invention of fire, the taming of animals . . . in the pre-scientific ages the . . . time-span for such changes was, at least, of the order of five hundred years . . . the time-span of important change was considerably longer than that of a single human life. Thus mankind was trained to adapt itself to fixed conditions." Whitehead, A. N., *Adventures of Ideas*, Cambridge, 1933, pp. 116–18.

" Educational change . . . must be directed towards certain social ends and designed to bring education into line with a changing social environment. . . . the approach to life remains . . . pre-scientific . . . this fatal division between resources and awareness. . . . To a great extent the failure of our social adjustment arises in a divorce at the school level between . . . knowledge and the creation of a social conscience." Humby, S. R., and James, E. J., *Science and Education*, Cambridge, 1942, pp. 1, 16, 28.

An appeal on the same score is contained in K. Mannheim's *Diagnosis of Our Time*, London, 1943.

CHAPTER II

TYPES OF MUSEUMS

Lack of funds is repeatedly quoted as an excuse for the ill-functioning of our public museums. It is a statement greatly provocative to challenge. Surely, as a rule, our museums suffer from a surplus of materials rather than from dearth of them. And where supplementary material is needed, it is incomparably easier to obtain than a few decades ago or in a more distant past when the acquisition of objects, their accessibility and their transport, were subject to serious obstacles. Contemporary invention and mechanized manufacture offer inexpensive materials for fixtures in exhibitions and for the preservation of specimens. Our poverty as museum workers lies on the side of the mind rather than of matter : we need a programme of tasks and knowledge of methods of using the medium of the museum and of the exhibition. The differentiation between the museum and the exhibition is made to suggest that a set-up, static display is not the only possible manner of using museum exhibits, which in fact may serve as stimuli for varied activities of people in a museum. We shall return to these points later.

It is proposed to distinguish first between two types of museum establishments : (*a*) storehouses and (*b*) premises for the display of exhibitions and for activities connected with exhibits, even if, in some cases wholly, and in many cases partly, the two functions may be combined in one building. A further differentiation would be in accordance with the group or groups of the potential visitors, as an alternative to the preponderantly current division according to the subject-matter of contents. Thus there would be museums for students, i.e. for people engaged, for some period at least, on a definite programme of work ; there would be museums for the general public ; and there would be museum services for children.

No justification seems to exist for a distinction between " education " and " enjoyment " as two separate functions of a museum, especially in connection with objects of æsthetic qualities which are sources of general education contributing to intellectual and emotional sensitivization. It should indeed be one of the tasks of the museum of the future to convince people of the

fallacy of a distinction in principle between enjoyment and learning, and of the ample possibilities of combining both in one and the same experience.

* * * * *

Storehouse Museum versus Display Museum

Experience has provided evidence that the combination of the two functions of storage and display in the exhibition rooms of a museum more often than not defeats both purposes or at least leads to the frustration of the latter, which in fact is the ultimate *raison d'être* of a public museum. It appears therefore justifiable to suggest that in principle a definite distinction should be made between accommodation serving the storage and preservation of specimens and others providing facilities for the display of exhibitions as well as for activities connected with specimens.

Section I

Storehouse Museums

A number of storehouses should be distributed throughout an area, on a nation-wide scale or otherwise, and be governed by trustees, representing single regions and forming a central authority.[1] With the aid of these storehouses certain museum activities, concerning the smaller museums at least, could be centralized, yet sufficient scope would be left for individual developments and the personal initiative of each single curator. The centralized planning may be guided by the following aims :

(*a*) to accumulate a stock of specimens illustrating all subjects represented in museums, or lending themselves to such presentation, with supplementary photographs and charts ; and in such numbers as would be required for putting at people's disposal a minimum of " Basic Facts " of contemporary knowledge ;

(*b*) to provide maintenance of such standard as would secure for maximum periods the existence of specimens ;

(*c*) in addition to making single specimens available, to prepare for loan with the aid of experts in various fields, exhibitions on a variety of facts and ideas, in keeping with the progress of contemporary knowledge

and standards of general education as recommended by educationalists untrammelled by party politics, commercial interest, or any other sectional bias.

(*d*) to perform this work, amounting to a full utilization of the museum and to an essential service to the community, with economy of cost.

From the point of view of architecture, the building storing museum specimens need not differ from any other storehouse. A purely utilitarian structure will be required, with facilities for the regulation of temperature, air moisture and light in accordance with the stored specimens. Easy accessibility of all parts of the building will be important, and fixtures will be needed for the adequate accommodation of objects of a variety of material and shape. Provision should exist to house series of single specimens of one type or kind, " sets " of objects and complete exhibitions, though these need not be set up in a manner of display. A sketch, or photographs, showing a set or a complete exhibition in a state of installation together with a list of specimens and descriptive notes, should offer sufficient information to the borrower.

REFERENCES AND NOTES

1. As a successful effort at centralization ought to be mentioned the affiliation of numerous small museums to the National Museum of Wales, in Cardiff. The central museum offers to the regional museums expert advice, courses of instruction and lecturers ready to visit the provincial establishments. Further, the exchange of mutual loans is being encouraged. Another effort at centralized museum organization in Britain was made by the Museum at Huddersfield. The scheme was based on eight subsidiary museums serving the village communities of twenty-eight districts.

A storage-museum proper, serving as a depot for specimens loaned to schools, is the St. Louis School Museum, U.S.A.

Section II

Display Museums

The view of American museologists that in future the large public museums will lose in importance and be superseded by small museums of a variety of types can hardly be emphasized enough. If the museum is truly to fulfil the function of a public institution in a democratic society it must cease to be represented by a limited number of colossal accumulations of objects immured in huge buildings and accessible, physically and mentally, to limited numbers of people brought into contact with these hoards by their incidental presence in a particular vicinity or by the privilege of their education and calling, if not by a surplus of leisure encouraging the use of pastimes of any description.

In their outward appearance the museums of the future are likely to be less conspicuous than some present ones, but they will, one may hope, be more genuine in their character. Educational institutions will have collections adequate to the purpose ; the temporary circulating exhibition will become a current feature in community centres, clubs, public libraries, shopping stores and educational centres of different kinds and grades ; permanent museums will display temporary exhibitions ; sites of special interest, by virtue of their historical past or of features of nature, will be articulated in Trailside Museums, in local archæological collections or in Historical Houses, and will be objectives of the motorist, of the great masses of the future.

(1) Research Museums

A university museum may serve as a representative type of collections that may form part of a learned society or research station of any kind. The function of this type of collection is to act as an aid in research and in the instruction of advanced students of a special subject and to be one among other laboratories of field-workers, and a substitute for field-work. The purpose seems fulfilled if the collection contains a careful selection of characteristic specimens over a wide range of the particular subject and displays them in a manner that enables students to see each specimen singly and closely, and to handle it under

favourable conditions of space and lighting. Any young undergraduate who can use a book catalogue, or any kind of index, should be able to find his way in this museum combining to a high degree storage and exhibition, and presenting the specimens in the unpretentious manner of sequence by area or chronology. In addition, the lecturer or tutor may undertake, himself or with the aid of students, the assemblage of a number of specimens in a small exhibition that would illustrate some thesis, an evolution or comparison. Or students may be asked to select and group specimens themselves, in addition to an essay, or occasionally as the major part of one of their exercises, only supplemented by verbal description, written or spoken. A particularly successful exhibition, resulting from a seminar or representing the effort of a single student, could be put up for a short period at the museum and be accessible to all students of the department.

It would appear that at present scientists avail themselves more of the materials of their collections than students of arts, though, in fact, specimens of archæological, ethnological and historical character, and objects of art, offer excellent opportunities for first-hand experience to historians, sociologists and linguists, apart from archæologists and anthropologists. The single specimen may be explored in field-work or laboratory fashion, or an exhibition may offer to the student of a special subject a general background of the culture or period with which he is concerned. There could be an exhibition of Spanish Culture, of Chinese or other culture (throughout the ages or within the limits of one particular period), or an exhibition of the Middle Ages or of another historical period (in a wider or smaller area). Objects of art would form only part of the collection and be joined by records of a variety of character, by implements, samples of crafts and objects documenting any aspect of human activity ; further, there may be products of nature, especially where an area has been chosen as a unit, with samples of minerals, soils, plants and zoological specimens ; finally, photographs, charts and maps would be there to add to the completeness of the image. The undergraduate student by necessity is limited in his reading to a specialized subject, but he could probably afford the time required to assimilate the contents of the synthesis contained in an exhibition. This would presuppose the co-operation of a trained museologist—of an educationalist familiar with problems of visual perception—whose task would be to present the specimens selected by the experts of

special branches of knowledge in an " entity picture " of maximum wealth and clarity of meaning.

To problems of grouping specimens to " entity configurations " and of training in museology reference will be made later. (Appendix, pp. 235 sq., 252 sq.)

(2) Students' Galleries

Students' Galleries in public museums are collections which again serve research and instruction of senior students, though the students need not necessarily be registered at an educational institute and not certificated in respect to their qualifications. In a manner similar to that of the university museum the students' galleries would fulfil their purpose best if they presented specimens, be they minerals, paintings or machinery, in the straightforward style of a library and in the order either of chronology, geography or typology. The most desirable solution would be to offer both a geographical and a typological arrangement. Thus Greek pottery would be presented once in the context of Greek culture and again in a group of pottery of different areas and ages. A big museum is likely to possess a sufficient number of specimens to supply a minimum of essential items for two groupings. Rarely, however, will there be a complete set for either manner of arrangement, and it would seem imperative to supplement the available specimens with photographs or sketches of further characteristic objects, so that the resulting group should be balanced and meaningful.[1]

A compromise between a students' gallery and an exhibition for the general public is bound to end in failure. The student approaches the exhibits with a body of information and with a definite aim in his mind ; what the exhibition presents to him is but a supplement to an already more or less defined pattern of meaning. To the general public, however, the pattern, both of contents and form, is to be supplied by the exhibition, a complete experience which presupposes on the part of the spectator nothing but common sense. Any attempt at combining the two almost contradictory kinds of display, must needs leave part of either of the implied functions unfulfilled, just as the ambition to widen the range of students too far beyond purposeful inquiry and into the ranks of the casual, even if thoughtful, visitors is likely to result in ill-effects on the mind

of the lay-visitor rather than in beneficial educative results. (Compare Appendix, pp. 243 sq.).[2]

The ultimate shaping of the Students' Galleries can be decided only by the circumstances in each individual museum, by its subject-matter, extension, etc. In terms of general principle it may be suggested that the students' gallery should serve both for exhibition and storage, and that in addition to the exhibition halls, study-rooms should be available where students may investigate on their desks single specimens taken out for them from the cases, just as books in reference libraries are put at the disposal of readers.

In Students' Galleries containing works of art it will be of importance to avoid features adverse to æsthetic experience, such as conspicuously ill-proportioned rooms, aggressive patterns and shapes of floor coverings and heating appliances. Two methods of accommodating paintings, sculpture, or specimens of arts and crafts, seem to commend themselves. One would be in the manner of storage with one item filed behind another and each accessible singly and closely. With the aid of hinges, frames, sliding drawers, and other similar devices, it is practicable to maintain the objects in the safety they require and yet keep them easily available for inspection. In addition there could be another gallery arranged on the lines of an exhibition hall rather than of a storage room. There series of pictures or sculpture would in the customary manner be hung or posed against the walls but in such limited numbers and so carefully spaced as to afford opportunity to people to view each object singly. Where space is limited the series exhibitions would be temporary and exchangeable. The principle of order may be based on chronology or on geographical area ; a particular school of style may be dealt with or the work of one master-artist. In all cases, however, the integration of the single exhibits into an entity should not proceed too far, so that the student-spectator should retain his right of interpretation.

(3) The Museum as a Centre of Training in Basic Facts

A new centre of study is suggested for a variety of students : The adult education student (shop assistant, clerk, factory worker, housewife), the school-teacher and future teacher, the university undergraduate and the curator-to-be. For the purpose of lectures

groups may be formed appropriate to the background and the ambitions of the people concerned, but certain " Basic Facts " should be contained in all the courses, differing from each other in scope, wealth of detail and subtlety of inference. The students of this centre may differ in vocation, interests and income, and yet they will be more closely united than a similar group would have been a hundred or more years ago. They will all be voters and cogs in a huge machinery of administration and trading ; none of them will possess the far-going self-sufficiency of his ancestor who could, and in a majority of cases did, grow the corn for his bread and perhaps wore clothes of wool shorn from the sheep he reared ; all together they would dwindle to a spot of destruction under the impact of a single explosive bomb. Such a common fate has a superiority of its own to divisions drawn by school certificates and income figures, and it calls for new educational ventures which indeed are not scarce. It remains for the museum to make a contribution fitting its own medium—the visual and tactile object and the synthesis of which the exhibition is so eminently capable.[3]

The suggestion for a centre for study in Basic Facts for Everybody is by no means an alternative to the utilization of museums for the adult education of homogeneous groups which is being propagated by some American educationalists. While fully appreciating the American proposals and wishing that they should be put into practice in Europe to the greatest extent possible in this crisis of history, the training in Basic Facts nevertheless seems commendable. In the mosaic pattern of the differing cultures of small Europe, common features of thought and feeling would seem of greater importance even than a common language.

A definite curriculum cannot be formulated save by patient experiment, in collaboration with specialists of various fields and in consultation with educationalists advising on the proportion and interdependence of the single subjects. The result, as the present writer sees it, should be a synthesis-syllabus aiming at such reorganization of data of general education as would contribute to the shaping of a mental outlook of great numbers of people in accordance with the existing reality. True to its purpose this centre should seek to impart to people not a mass of details but focus their attention on essentials, on relations between single fields of knowledge and on trends of further developments.

As an example of possible contents a project on the following lines may be suggested, to be set out finally on three screens (each about 20 feet wide and 12 feet high, or larger). The whole project would be entitled " Our Ancestry ", or " Between Yesterday and To-morrow " and its single parts would be :

(1) " *From Protozoa to Man* " (the evolution of the human species from simpler forms of organisms, as suggested by biology, and demonstrated with the aid of models, skeletons, pictures and charts ; with stress laid on those points of evolution which caused the evolution of the specific human form and capacities).

(2) " *Man's Progress in Control over his Environment* ". (Instead of measuring history in terms of time or of area, human progress would be the standard measure relating single facts to each other. There would be tools of primitive man—made and used thousands of years ago in Europe, or at present among some native tribes of Australia or Africa—and implements, or models of implements, and pictures, illustrating progress up to machine-power, air transport, radio, synthetic materials, etc.)

(3) " *Our Own Past* ". (Regional history in connection with geology, geography, technology, arts and crafts from pre-history to the present time.)

Another set of Basic Facts, composed also of three comparative units, may deal with Facts for the Citizen, the Producer, and the Consumer. Another set again, in three or more units, may attempt to compare conditions of life in different continents. Or more specialized subject-matter may be decided upon : Housing, now and before, here and elsewhere ; Struggle against Want—the ways in which people seek and sought insurance against want, in past epochs, in primitive communities, by aid of social services as we know them.

In all cases of historical material no preponderance should be given to national matters, but human evolution as a whole should come first and regional events second ; political history should take its place among other facts, such as economics, invention, production of articles, social conditions, artistic creation ; the historical facts should serve as an introduction to aspects of life which in specialized study are known as sociology and psychology.

After an introduction of the project by the tutor, teams of students should be allotted, in accordance with their own requests, a part-project for a preparatory screen, to be set up from a wide range of specimens and pictorial material. Each team would assemble their materials and add to the specimens offered to them their own finds in field-work and literature. After discussion they would set up in " visual logic " the things which seem essential and characteristic for their argument. One by one the teams would present their work, in a state of dress-rehearsal, to an audience drawn from all groups of the centre and would invite criticism. Finally, selected sets of all teams would be exhibited and form a basis for further discussion between people of widely differing backgrounds. The common subject-matter, to some degree familiar to all, would unite minds and the range of interests implied in the subject would tend to counteract prejudice and personal emotion which so often mar the interchange of ideas when a discussion is focused narrowly on a subject of politics or on a current economic issue.

People with little spare time and limited educational preparation may decide to play the rôle of passive listeners at discussions and on such occasions view and handle specimens, but everybody should be encouraged to participate in the grouping of objects and in experiencing something of that " creative initiative " postulated by A. N. Whitehead, as distinct from merely passive apprehension.

In form of a supplementary activity the training in Basic Facts should be of value to university undergraduates and teachers. The need is obvious for a super-departmental course for undergraduates, as a counter-influence balancing the increasing specialization of vocational training. Such influence would best be effected by linking up aspects of humanities and sciences, and the visual synthesis of the method of the exhibition would reduce the time and effort required from the hard-pressed student. Whether undergraduates should attend a course of this kind in their first, second or third year at the university would best be decided from experience. At the beginning of their university training they may benefit from a general panorama as a basis for more detailed information at a later stage of academic study, when their faculty for critical thought has improved and their stock of knowledge has increased.[4]

A recent official statement concerning the training of teachers and youth leaders[5] called for a " new selection, a new emphasis,

and, above all, new methods". No doubt new ventures in the training of teachers will be called for to meet the demand for instructing personnel on the scale of a European reconstruction of education. A course in Basic Facts seems commendable in the training of men and women of more mature age, whose varied experiences are to be correlated and supplemented to fit the tasks of teachers. In such a course opportunity for the training of power of clear speech and of clear thinking would be provided. As a preparation for the art of teaching, and of living, the use of the power of imagination would be encouraged as well as faith in the potentialities of the human being. If compared with the numerous and extended facilities offered to teachers and teachers-to-be by American museums, Europe so far has contributed little to the shaping of the growing generation by way of influencing their mentors. The American example with its variety of courses for teachers is worthy to be repeated in Europe, and to be evolved into new ventures.

A draft for a syllabus for Training in Curatorship is contained in the Appendix, pp. 252–4. In this context it may be added that knowledge of Basic Facts connected with contemporary culture would appear of paramount importance in a curator's equipment at a time when human problems—the relations between communities and between the individual and his environment—are the sources of major conflicts. The museum needs people skilled in the arts of the maintenance of specimens and specialized research workers keeping watch on the genuineness of new purchases and adding to the knowledge concerning specimens issued by the museum ; yet more scope for action than ever before ought to be given in our museums of the future to the educationalist—to educationalists of all grades and shades who will put to use the stored wealth and interpret facts and values to various groups of people.

The Centre for Training in Basic Facts would in several respects provide opportunities for the instruction of the curator-to-be. In addition to the General Culture course contained in the Basic Facts curriculum, the essentials of visual perception would be taught and manners of display would be studied in the form of practical exercises with objects on screens and in cases. There would be training in progressive and experimental methods of teaching in relation to groups of people of differing character. Informal but essential experience would accrue from contacts with fellow-students of a variety of types, of specialists, of teachers,

and of representatives of a wide cross-section of the "general public".

REFERENCES AND NOTES

1. "Far be it from me to condemn a geographical system, so long as it can be carried out successfully, in such a way as to teach the museum-going public the main differences which exist between the various races of Man, whether it be in the physical or the cultural aspect of Ethnology . . . but this system can only be followed with success in an institution of relatively large size, since much space and material is required to do justice to it." This statement was followed by words warning of mistakes and of absence of balance due to the limited number of specimens and of space available. Balfour, H., "The Relationship of Museums to the Study of Anthropology", *The Journal of the Anthropological Institute of Great Britain and Ireland*, vol. 34, London, 1904.

2. Those who have to decide on the use of museums either as Students' Galleries or as exhibition halls for the General Public and who, quite naturally, seek best ways of compromise, ought to translate their museum problems into terms of written communications and try to answer the question whether any successful compromise is practicable at all. Surely, a learned dissertation on some specialized aspects of zoology or history, or otherwise, would not truly gain in value as a popular book if the treatise was printed in the decorative form of a big volume wrapped up in a handsome jacket, and if a lively little essay was attached as an introduction to the heavier fare to follow. The same would seem to hold good in the case of a museum. A decorative entrance, handsome columns and ornaments in stucco on the ceilings of exhibition rooms will not facilitate the ordinary visitor's approach to cases which exhibit specialized matter of interest to the scholar. Nor will a few cases near the entrance door in which certain allowances have been made for the non-specialist, suffice as an introduction to the students' cases which fill the rest of the museum. A similar situation obtains with regard to exhibitions for children : they too are a problem entirely of their own. Neither a manual in botany for the use of university students nor a historical essay of good literary quality is necessarily recommendable for the use by children in their early teens ; and in the museum the child needs a special presentation of specimens if he is to draw real benefit from what he views.

3. "Again we see the influence of (Danish) People's High Schools, binding people together through a corporate life, developing a sense of social equality, giving them an inspiration and the sense of a great human ideal, so that social change comes, and comes not as an economic class-war of a materialistic type, with the attendant evils of immediate brutality and ultimate spiritual barrenness, but as a deliberate movement towards a higher type of life for men." Livingstone, R., *The Future of Education*, Cambridge, 1941, p. 59.

The need for a higher standard of general education has for many years been advocated by Karl Mannheim. He complained of the "vanishing sense of common reality and group solidarity" and called for a "re-integration of culture". *Ideology and Utopia*, London, 1936.

4. *Report on University Development*, published by the Association of University Teachers, London, 1944, where two kinds of degrees are recommended, a special and a general.

5. McNair Report on *Teachers and Youth Leaders*, published by the Board of Education, 1944.

(4) Museums for the General Public

" The world is a jig-saw puzzle the pieces of which are put into our hands, a chaos of isolated fragments, which yet could be fitted into an intelligible and even beautiful pattern . . .", wrote Sir Richard Livingstone in *The Future of Education* (1941). This may serve as a challenge to develop the potentialities of the exhibition for offering information in the form of an easily conceivable synthesis.

" The uneducated man makes no attempt to combine the phenomena ", wrote F. C. Bartlett in his book *Remembering* (1932). The uneducated man—who is he? Again the same author gives us an answer by stating that " . . . educated subjects are likely to understand and certainly to remember astonishingly little of any scientific subject concerning which they have been given no specialized training . . ." This view is supported, or even enlarged, by Sir Richard Livingstone's demand for " Adult Education for the Educated ". Indeed, it is by degree only that we differ from each other in ignorance of the wealth of facts and problems which bear on human existence.

Great as the disproportion may be between the sum of available knowledge and the share in it by each individual, the desire of people to obtain knowledge is considerable, as is evidenced by the ventures in education which have informally sprung up in recent years—the brain-trusts, discussion groups, vacation courses, lectures in air-raid shelters. Information of reliable quality is on the list of urgent post-war demands and may come to be recognized as a major equipment in every man's struggle of life. The museum possesses capacities for gathering fragments of knowledge into coherent patterns and for imparting information to great numbers of people. It contains information of a variety and of a reality hardly second to that of the daily press ; it can present substance similar to that of a book by an expert, but with economy of fatigue and time on the part of the student.

The subject-matter of a museum for the general public may be best described in the following words of A. N. Whitehead : " There is only one subject-matter for education and that is life in all its manifestations." In the light of this sentence museums of natural science, of archæology, ethnology, history, folklore, technology and art, appear as opportunities for an experience of the adventure of life and of man's struggle for control over nature,

in the form of actual happenings and of events in the unseen world of the human mind. Thus every specimen acquires meaning to everybody.

An outline-programme for an imaginary public museum may help to lend precision to the author's vision of it where a special building is available for the purpose. This museum should be not an alternative opposite to Trailside Museums, Historic House Museums or temporary exhibitions in community centres and clubs, but one among other possible types of public museums of the future. It may be situated in a provincial town of a hundred thousand or more inhabitants, or in a district of a big city. The programme is conceived in terms of a two-years plan and is concerned with the following main aspects of the museum : (*a*) The Feature Exhibition, (*b*) The Gallery of Adventure, (*c*) The Silence Room, (*d*) The Studio.

The Feature Exhibition : " The Topics " and " The Timeless Affairs ".[1] It would seem that there are two kinds of subjects of appeal to great numbers of people of differing interests—news of recent events and ageless affairs. Both ought to be featured in the museum. The topic in the news may be an earthquake in Japan, a new plan for social security, a scheme for day nurseries, a recent excavation of a royal tomb in Egypt, or the centenary of the birth or death of a great poet or soldier. On the list of the ageless contents may appear some aspect in the evolution of garments, of means of transport or of tools ; ways in which animals provide their food ; benefits men derive from minerals ; a comparative survey of exchange of articles between certain areas at different periods of history, or some aspect in art. At any one given time there should be two exhibitions representing the two quoted main themes, and each lasting about two months. The selection and presentation of the specimens in each Feature Exhibition should result in a meaningful structure, coherent both in its contents and its configuration. That structure may be in the nature of a comparison or of an evolution, of cause and effect, or of an interaction of a number of facts. In any case, the total result of meaning contained in the exhibition would be superior to that of the bare sum of its items, owing to the stress laid on the mutual interdependence of facts, with each single fact being presented in its dynamic aspects rather than in its static qualities.

It will be the task of the curator to decide upon the choice of " relation-sets " suitable for visitors to his museum. The news of the earthquake in Japan may become an occasion for a geological exhibition, with samples of minerals and soils combined with photographs of landscape, with charts and possibly with a film, and altogether amounting to a broad outline of information on earth movements, or it may be an opportunity for dealing with Japan in general, or with some aspects of the country and the people. Recent experiments in cattle breeding may be treated in a cross-section of contemporary efforts, or a particular recent experiment may serve as the final, or the opening, point of a survey telescoping husbandry throughout the ages and its effects on human civilization.

The curator will have to decide upon the distribution of stress in the chosen contents : whether the topical subject would gain in relief by a brief comparison with historical antecedents, or whether it ought to be treated as a mere introduction to a historical survey ; whether a special aspect of a particular area, for instance its industrial production, should be supplemented by information on other aspects of the same area, maybe on consumption or social services, or whether the comparison should be related to facts of production of past periods or of other areas. In accordance with his decision as to the selection of specimens for the display of a certain subject-matter in his museum, for the members of an association or for any special group of visitors, the curator will solve the problems of supply of exhibits. He may find a part of the required materials in his own museum or have to assemble the entire collection. From the current catalogues of ' storehouses ' accessible to him, in his own region or in the capital, and sometimes abroad, he will compile a list of desirable objects and alternatives. In addition to the specimens he may order explanatory notes prepared by specialists employed by or co-operating with the store-centres and, possibly, sketches or photographs suggesting manners of display and of configuration of objects. It seems important that there should be scope for the adaptation of a subject-matter, and even of a complete exhibition, for the purpose of a particular museum and its potential groups of visitors. The rapid increase in the number of circulating exhibitions, and of bodies undertaking their assemblage and distribution, is indicative of the need for temporary displays, yet it would appear that no range of subject-matter, however extended beyond the now available material, could

genuinely satisfy the potential needs for variety, not merely of subject-matter but also of method and approach to the subject. Alone the number of daily newspapers published in one town or country indicates the numerous shades and stresses with which the rough matter of news is moulded for the benefit of members of a community. Increase in the intricacy of contents naturally entails increasing variations in the form of the communication. In practice, however, a ready-made exhibition is circulated in a hit-and-miss manner to many groups and a tendency exists to regard the number of displays of one exhibition or the number of visitors to a single display as an ultimate proof of success. One may venture to suggest that if a real test was made of the benefits people have derived from some touring exhibitions the results would not be wholly encouraging.

The very aim of the museum exhibition in our society would seem to be the presentation, and the interpretation, of " relation-sets " re-creating in a variety of ways man's extended environment as it stretches beyond the reach of our senses, across space and time. Adequately selected and presented, exhibitions of this kind will contribute to the shaping of a common up-to-date imagery and influence the conduct of city dwellers bereft of a cultural heritage, which under more primitive conditions of life finds expression in folksong, legend and custom. In " relation-sets ", facts of local and international importance, of the past and present, will become integrated ; old experiences will be orientated in new ways, by the inclusion of new associations or by the dissociation of facts from worn-out formulas. In addition to imparting facts such presentations are likely to sharpen our sense of values and, by throwing light on the implications of seemingly isolated facts, may tend to develop our foresight.

Where works of art are the specimens, the function may be informative in a subsidiary manner only and act chiefly as a stimulus to impersonal emotional experience, which will heighten the spectator's sense of vitality and his awareness of human fellowship. To the art exhibition proper might be added—in an adjacent room so that there should be no disturbing intrusion into the æsthetic experience—supplementary informative material, in visual form if possible. There would be illustrations, drawings and photographs presenting the scenery and the people in whose environment the paintings and sculptures were created. Charts and statistics using symbolic signs instead of figures would be an appropriate method of supplying economic and social data.

Whatever the character of the specimens of a Feature Exhibition should be, artistic or otherwise, their combination with pictorial material will set a manifold problem to the curator. The tactile presence of objects lends definiteness to vague concepts; photographs representing the production and the use of objects similar to the exhibit and its general background will promote the growth of associations in the spectator's mind and ensure that the isolated object appears as a feature in a pattern of life and as a link in a chain of events. The presentation is likely to gain in character and wealth of meaning if to the photographs are added charts. The photograph as well as the chart is portraying life, but each in a different manner. The photograph catches the fleeting moment, explicit but casual, and the chart, in prosaic shorthand, presents the drama of a series of events. Being a symbol, the chart may stand for principles the implications of which cannot be embodied either in single objects or in pictures of incidental reality; it leads from the concrete into the wider domain of the abstract. The welding of different elements into orchestrated units is a task awaiting further experiment and, to some extent, a new solution by the curator of each individual exhibition.

The curator will have to remain continuously aware that his efforts will have prospects of success only if he will take into consideration the human capacities for visual perception and assimilation of information. Every author, literary critic, and in fact every reader of a book, is conscious of the difference between a scrap notebook and a book. Yet a great number of museum exhibitions comparable to scrap notebooks are allowed to exist. There will be agreement that if a book contains even fewer facts than a notebook, the former is likely to be more appropriate for the purpose of imparting information to people and of influencing their minds, and that the essential qualities of the book are coherence, clarity and other formal aspects. If translated into the medium of an exhibition the same requirements remain decisive: a limitation in the quantity of items to be presented, in the entire exhibition and in each single case or screen; such spacing of objects as would allow each single item to be clearly perceived; such size of case or screen as would enable the spectator to perceive the particular entity without exaggerated movements of limbs and eyes; such sequence of items, throughout the entire exhibition and within each single unit, as would articulate the meaning of the contents and would present features of formal character. In the absence of *goodness* of arrangement,

spectators will view an exhibition but not perceive it properly or fully ; no understanding will result and the process of perception will remain uncompleted. In absence of definite order and coherence, misinterpretation will occur in accordance with the human " effort after meaning " which will have been undertaken on insufficient premises, and the emotional dissatisfaction of the visitor will express itself in form of the well-known " museum fatigue ". (Compare Appendix, p. 244.)

No doubt there are as many different ways of " good " presentation of contents by means of exhibition as by verbal methods, and exhibitions containing specimens of different kinds and addressed to different groups of people will require differing formal character. The word is the material used in prose and in verse, in description and in dialogue, in essays and in the opera text, yet the techniques vary. Similarly, the composition, the sequence and the stress on single elements must vary when three-dimensional specimens and pictures are used as the material of visual configurations. The museum reformers who suggested the Period Room and the Habitat Group as alternatives to the Series of objects were on the search for solutions, but continued experimental work on this line is required. The period room and the series are but two radically different manners of selection and presentation of exhibits and their possibilities do not appear to have been exhausted.[2] A brief summary of the experimental work bearing on problems of configuration, which was undertaken by psychologists and educationalists in America, and by the present writer in Cambridge, is contained in the Appendix, pp. 236–250, and is connected with some suggestions for future experiments and with excerpts from writings of psychologists on problems of visual perception in general.

The Gallery of Adventure. A special room should be reserved for exhibits of different kinds presented without special coherence of contents and without attempt at formal arrangement. To some extent, this room will be similar to existing exhibition halls in museums with a case of pre-historic implements standing next to one containing Greek pottery ; with Oriental textiles, local mediæval carvings and animal skeletons following each other. Distinct from the existing museum would be the limited quantity of specimens, and the good visbility of each item in the *mixtum compositum.* Such presentation, combined with brief but adequate

labelling, should enable the " uneducated man " to gleai little time a few fragments of knowledge—stimuli fertilizing mind and contributing to the completion of the jig-saw pu picture of the universe. Every two or three months some oi specimens should be replaced by others. Bibliography lists time tables of lectures or excursions should be available.

The Silence Room. There should be a well-spaced roor harmonious proportions with provision of comfortable seats careful exclusion of features making for unrest—of conspicuo patterned floor covering, stucco on the ceiling, of street noi where a few selected specimens should in turn be on view certain periods. Objects of very different character migh assembled : one or more paintings and sculptures of diffe styles, a beautiful mineral, an early map, coloured prints of pl or any piece of fine craftsmanship—furniture, textiles, m work, or pottery. A common feature of all exhibits shoulc their æsthetic quality, their proportions, rhythm and col Occasionally the attempt might be made to achieve a cl relationship between the single items by tuning them on a sp theme, a colour scheme, a certain rhythm, the personality single artist, or a general mood, gay or contemplative. S orchestration will of course be a difficult and a specialized t and will depend on the wealth of material resources availabl the selection of specimens and, above all, on the talents inclinations of the curator.

The Studio. No public museum of a modern commu would seem complete without facilities for visitors' activi According to the circumstances of taste and of space in individual museum the activities of visitors may be limite operating a few movable exhibits or to partaking in an infor art class in a " Paint and Clay Corner " ; there may be a lab tory for naturalists bringing their own finds in the fields checking them up with the aid of museum exhibits,[3] there be a workshop for crafts, rooms for music and discussion, ar floor for folk-dancing. The more scope is given to the co-op tion and the initiative of the public, the more truly will museum serve its purpose of a public institution in a contempo society.

The Public Museum : its architecture. One generalization on this subject would appear justified—that there should be no ready-made formula for museum architecture. Each case requires individual planning and the prospects of success will increase if the architect co-operates with the curator, and if the curator possesses sufficient knowledge of the architectural aspects of a museum to act as the architect's competent collaborator. The planning of a museum should be based on its " inside " rather than on its façade. The first question should be : what purposes will the accommodation have to serve,—the display of specimens for the general public in the form of temporary Feature Exhibitions, of a Gallery of Adventure, of a Studio or Studios, as Students' Galleries, as store-rooms, offices, rooms for classes, a library, a theatre ? Will the Museum be an appendage to a community centre or a self-contained educational institution, will it be combined with the local public library, or will it be the central nucleus for community activities presupposing a hall, a workshop and a cinema ? In any case some of the inside walls should be movable and allow a certain adaptability of rooms to different purposes. No exhibition room will suit a variety of exhibitions, which will differ from each other in extent and in the character of specimens.

There is much scope for new invention in the technical field, in connection with cases and screens for the contemporary museum. The static case, very often so large in size that it presents part of its contents beyond the orbit of a spectator standing in front of it, and allowing little else than a presentation of objects in the form of series, belongs to the past or into the store-room. Experiments are needed with non-reflecting glass and with plastics as material for screens, which in some cases may serve as partition walls.

No type of architecture seems less suitable for the purpose of a museum than the single massive block and the orthodox three-naved hall. The contemporary Public Museum, as the present writer sees it and has tried to outline it in the preceding chapter, is a living, changing organism composed of various parts, each of which demands an adequate expression in architecture. If pressed into one block the organism loses parts of its living force and creativeness. There should be several small blocks, integrated into an entity. Green spaces or courts separating, and connecting, the single buildings, will do justice to both the exhibits and the visitors who on their way from one section of

the museum to another will gain new freshness while passing through a court or a small garden.[4]

REFERENCES AND NOTES

1. " A museum, in the modern sense, is an institution actively devoted to the task of interpreting the world of man and nature . . ." Parker, op. cit. (p. 169, n. 13), p. 3.

" Museums too must have greater contact with reality. Historical collections should be linked up with current problems and make it obvious again to the man in the street that he himself is part of history, and that his actions and thoughts can shape the destiny of his town or country . . . that . . . he is not an isolated spectator remote equally from science or history, but is as much a historic figure as a Roman Legionary, a Saxon invader, or a Canterbury pilgrim." Markham, op. cit. (p. 181, n. 1), p. 174.

" We live in a society . . . where the collective vote of thirty million voters determine the policy of the state. . . . Our machine will not work unless its component humans have some understanding of it, know what citizenship is and are aware that they are citizens." Livingstone, op. cit. (p. 201, n. 3), p. 27.

"we shall no longer divorce anthropology from art, but recognize that the anthropological approach to art is a much closer approach than the æsthetician's." " . . . the museum objects were made to meet specific human needs . . . and it is most desirable to realize that there have been human needs other than, and perhaps more significant than, our own." Coomaraswamy, A. K., *Why Exhibit Works of Art?* London, 1943, pp. 21, 94.

2. The Period Room and the presentation in the style of Folk Parks would seem to be only one kind of alternative to the exhibition of single exhibits, or series of them, without a definite background connecting the objects to some wholeness. Both the Period Room and the architectural setting of the Folk Park can but present a very limited unit and it is left to the imagination of the spectator to integrate that unit into a wider background or perspective. The present-day museum visitor is constantly encouraged, by the daily press, by broadcasts and films, to extend his attention over a great variety of things ; he may be conscious, to some degree at least, that he stands in communication with men and matters throughout the world. His perspective and his range of interests are greater than those of his ancestors. He has seen Period Rooms in films (whatever their quality may have been) or, on his travels, in historical castles. One would wish the museum to show to visitors not only first-class Period Rooms but to add to them some information about the social background of the community which had created those rooms. Photographs and charts might help to convey such information, or a well-chosen film. It may be that next to the self-contained Period Room there should be another room in which one could find singly certain specimens which are specially characteristic of the period. One ought to try to create conditions that would encourage the visitor to absorb what is shown to him and to build up from his impressions a bigger and farther-extending experience than the one actually presented in the narrow limits of a few exhibition rooms. If the photographs, the charts and the captions will be of the proper kind, they will stimulate the visitor's co-operation in the mental reconstruction of the Period. Yet it will require a good deal of patient experimenting before arriving at some reliable knowledge as to the possibilities of linking up the concrete Period Room with a wider environmental experience suggested by pictorial means and a limited amount of written information, i.e. by means more abstract than the Period Room itself, and more condensed in its contents.

3. Promising preparations are being made for the encouragement of the amateur naturalist. A Council for the Promotion of Field Studies was formed in Great Britain in 1943, and its aims are to set up Field Study Centres providing facilities for both adults and children, and for professional workers as well as for amateurs. Small museums are expected to form part of these Centres.

4. Compare the description of an imaginary museum by Herbert Read, *The London Mercury*, London, February, 1939.

New developments in museum architecture may evolve in connection with the " All-in Arts Centres " suggested in 1945 by the Arts Council in Great Britain. There would be an exhibition room, a room for theatrical or musical performances, which could be used for social gatherings as well, and a restaurant. Sound-proof folding partitions would make it possible to extend or reduce any section, and to adapt the scheme to individual local requirements.

(5) Museum Services for Children

> " Education is atmosphere as well as instruction ; it is not an assemblage of piecemeal acquisitions and accomplishments, but the formation, largely unconscious, of an outlook and an attitude."
>
> (Sir Richard Livingstone.)

> " Education is a very complicated adjustment of the subjective feelings and emotions to the objective world."
>
> (Herbert Read.)

It is here proposed to consider education not in the perspective of types of school and preparation for professional careers, but of human educability first and of education second. Our main argument is : what are the educative potentialities of the human being, if considered in the light of his biological evolution.[1] How do these potentialities match the exigencies of present-day life ? How are they met and fostered by the existing education, and what are the special possibilities of the museum to further both the natural trend of human evolution and the adaptation of the growing individual to his environment in the world of to-day ?

A comparative table may help in the discussion of these problems (see table on page 212).

Let us compare these facts with the behaviour of children in museums, as it was observed by the present writer, especially in the course of her experimental exhibition " How Things Began ", set up for children, and as it was reported by other investigators. Quotations from statements made by children are contained in the Appendix, pp. 245, 246. In this context the following summary statement may be made :

The museum may be recommended as a laboratory for testing new approaches to the teaching of children, both to the contents of curricula and to methods of teaching. It is a medium of

Fundamental characteristics of the living organism as opposed to matter.	*Qualities characteristic of the progress of human evolution* and largely due to the construction of the brain and the nervous system.	*Qualities corresponding with primary requirements of our environment.*
Irritability, or readiness to respond to stimuli ; Plasticity. Purposiveness. Constructiveness.	Increase in sensitivization to the environment. Development of consciousness from a vague sentiency of affective tone to cognitive experience. Growth in awareness of points of significance. Growth in capacity for choice. Increasing quantity of distance associations, reaching into the distance by means of memory into the past and by means of constructive ideation into the future.[2]	Adaptability to a high rate of change in conditions of life. Capacity for a variety and considerable sum of experiences, in accordance with the extension of the periphery in which interdependence occurs and the widened horizons of knowledge. Mental capacity for speed.

considerable capacities. for furthering progressive education and it affords opportunity for experiments without prematurely upsetting the existing curriculum. The aims of museum work in connection with children, as the present writer sees it, should be the forging of twofold links, between subjects taught separately at school, and between school learning and matters bearing on everyday life. Synthesis is the natural method of the exhibition presenting a number of facts simultaneously,[3] and the appeal of the three-dimensional, " real ", thing heightens children's capacities for comprehending and assimilating information. In this manner facts of considerable complexity and subtlety are likely to be imparted to children. The appeal to their intellectual habits and emotional responses will gain in strength if the museum does not merely offer finished, static displays to be viewed by passive spectators but becomes a place for a variety of activities.[4]

Special services for children are still an exception rather than a rule in European museums, but even where they exist, in the form of children's galleries, lectures or loans to schools, they generally supplement class-room teaching rather than utilize the special potentialities of the visual and tactile specimen. Judging by experiences made in connection with the experimental exhibition

" How Things Began ", and on other less formal occasions, the effects on children of visits to exhibitions set up in the traditional manner for the use by the general public seem not altogether advantageous and, indeed, in many ways adverse to education.[5] The quantity of exhibits in a museum hall of orthodox character, the lack of coherence between specimens and the insufficiency of explanation, tend to bewilder the children, to dim their consciousness and to decrease their capacity for choice and for the formation of associations. The situation, however, changes and becomes educative when a limited quantity of specimens is presented to them. With their growing maturity the number of specimens may be increased and their coherence stressed. Children of all ages vividly appreciate facilities for touching and handling objects and opportunities for activities, in form of crafts, games or play-acting, in connection with specimens. Such and similar arrangements are likely to enhance the clarity of the children's consciousness of their experience and their faculties for purposeful thought and action.

The museum possesses special capacities for approximating stimuli contained in an environment. Whereas a book, a lecture or a picture are sources of second-hand information, in the museum reality is available, even though in the majority of the existing European museums the " reality " of environments of distant times or places is presented in a manner of fragmentarization which only in the initiated mind of the expert evokes an image of wholeness. For an approach of children to the environmental stimuli potentially contained in museums, a method to be referred to as *Framework Exhibition* may be suggested, in which certain features of American museum work for children are combined with experiences of the writer.

Any room, at school or in the museum, may be used in connection with the " Framework Exhibition ", provided that a free space can be made available, a small arena in which a group can assemble informally, with the children squatting on mats or low stools, ready to get up and take part in the activities. Two or three children will be asked to fetch from an adjacent room a few specimens which will be passed round to be viewed and handled. It may be a set of objects connected with each other in the sense of representing stages in an evolution or phases in a process of work. There may be three figures representing three types of men, for instance, " an African, an Eskimo and a man from New York City ". Another set may consist of

different animals, and another set again of objects briefly illustrating the production of an everyday article (it may, for instance, be a cotton-flower, a spindle and a sample of yarn, a loom and a piece of woven cloth). While passing from hand to hand, the component parts of the set will be named, will be brought into comparison with the habits and experiences of the children themselves, and will cause distant lands, periods and processes hitherto unknown to appear on the fringe of personal experience. In addition to information supplied by the teacher, the children will add facts which they themselves have found through observation and in the form of answers to questions arising in discussion.

Whatever the contents may be, their relation to human beings should be stressed. Men should learn and know more about man : about human conduct and human motives.[6] If children learn to value matters—be it a mineral, a battle in history or a new technical device—in relation to their function in human life and to their contribution to social ends, they will develop standards of value. The realization that he is at the top of the scale of the universe will engender in the child responsibility and enthusiasm for contributing to that fabulous success of evolution, to a victory without national limitations.

The handling of the objects will be one approach to them [7] and another will be by means of drawing, with the specimens serving as stimuli of ideation and imagination rather than as models. One might, for instance, suggest to children that they should imagine and draw landscapes or houses, or scenes of life, in connection with the people, animals and plants, with which they were acquainted, and then, perhaps, give them opportunity to compare the pictures they have imagined with others actually recording that background.

An even more vivid approach to the information will be by means of translating it into the action of a mimicry performance, with groups of children representing in turns a variety of scenes.[8] The first major reaction is likely to be emotional. Desires otherwise repressed, in hours spent rigidly on seats in class-rooms, or in any kind of passivity and in efforts at displaying only the tamed part of oneself, will find outlet in the staged scenes : in action, adventure, self-expression, in experiences of competence and satisfied vanity. If carefully guided, the collective emotion will acquire social qualities and the self-expression of a number of individuals will develop into co-operation. At this stage emotions will have done their preparatory part, they will have given impulse

to thought and have aroused the children's " reactivity ", so that the reaction proper can be harvested by way of constructive reasoning. The mimicked scene which ceased to be self-expression will become a practical situation, objectively to be considered.

A scene, for instance, may represent a mediæval market where goods are bartered, and this situation may lead to the ideation of the development of token money as we know it. By acting the scene, they will come up against the problems involved: how many, or how few, of their articles of use they could obtain by way of barter; how much of his time everybody would have to spend on the production of articles of use, for his own consumption and for purposes of barter against other necessities; what measures would have to be taken in order to extend the area of trading. So history will become alive and a means of training in the art of living. Furthermore, it will become an opportunity for training in the art of thinking.

Thinking, which under the name of logic is an education reserved for the privileged few who benefit from higher education, ought in a democracy to be consciously practised by everybody. Judging by the reactions of children in the described experimental exhibition a tendency to logical thinking is a natural human quality and it is a task of education to develop it. Training in thinking through behaviour in concrete situations has its advantages, for every deviation from logic will instantaneously become apparent. In concrete situations a young child will learn to distinguish between the more and less relevant, he will strengthen his capacity for observation and choice, for the weighing of evidence and the drawing of conclusions. There he may be led to meet the dangers of sweeping generalizations, of facile analogies and of explanations based on arbitrarily selected partial causes; he may acquire the brave habit of doubt, and strengthen his resistance to suggestions; he may experience the fascination that lies in following an argument to its bitter end, and through familiarity with " as if " situations never experienced by his own senses develop his powers of imagination.

At the same time it would seem essential to bear in mind, when using visual means of education, that it certainly is not our aim to train people only in their dealings with and in reactions to concrete objects. Indeed, the trend of the evolution of the human mind is a progress in grasping the abstract as well as the concrete. There the graph, the diagram and any kind of sym-

bolic picture may have to play their rôles, mediating between the concrete objects and verbal information.

The activities to which a Framework Exhibition may lead or into which it may be integrated, will of course go beyond the school building, into nature and the social environment. From such excursions, on the lines known from " Regional Surveys " and Field Studies, the children will bring back to school things they have collected—samples of minerals, plants, sketches of animals and landscape, and of people at work and on the road.

The final goal will be the setting up of an exhibition on screens and in cases, consisting of museum specimens and things collected and created by the children themselves. The arrangement of the single items into units of meaning and of pattern will provide further opportunities for learning and self-development. Team-work will have ample scope and there will be opportunities for seeing things from the angle of another person's point of view. Problems of presentation will arise and will be similar to those concerning the arrangement of any exhibition, discussed before in connection with museums for the general public.

Naturally, the scope and the complexity of sets will grow with the maturity of children. At the age of twelve to thirteen, if not before, they seem prepared for dealing with an entity containing about fifty objects. Three such large sets should be aimed at as the minimum in the course of school education, one outlining " Early Steps in Civilization ", another dealing with " Regional Culture ", and a third one devoted to " Some Basic Facts for the Modern Citizen ". The wealth of details will depend on the character of the school, the length of time available, and the age of the children. Further sets will develop quite naturally from lessons in science, geography and history. There may be a set on " The Raw Materials We Use " or " Science and Industry ", or " Agricultural Implements and their Effects on Human Progress ".

Summing up, the Framework Exhibition with its all-round appeal to children, to their intellect and their emotions, their sense of sight and of hearing, of touch and of movement, may be recommended as a method utilizing stimuli equalling situations found in real life. The reactions of the child to the multiple stimulus will constitute his education. By means of such and similar " sets " the museum will provide opportunities for experiences connected with matters lying far beyond the immediate

environment of the child and yet actually forming part of it in this world of interdependence. Active participation in the process of learning will offer opportunities for a training of children in re-adapting themselves quickly to varying situations.

Definite programmes for Framework Exhibitions, with regard to their contents and their practical application, can only be established by patient experiment and in co-operation between museum workers and teachers.

Particularly successful exhibitions set up by one group of children may be displayed for the benefit of the whole school, or of the general public, should a room be available in a community centre or in the local public library. The boys and girls responsible for the arrangement may act as guides or give short talks on some aspect of the exhibition. This would provide opportunities for children of differing ages and backgrounds to meet and to exchange views. Occasionally a wider public may participate in such meetings, parents and other adults. An alternative would be to present in one exhibition a number of screens set up by different schools, and to utilize the comparison as a stimulus for the development of further projects as well as for the assessment of faculties of different age-groups.

Special Children's Museums are called for and a draft for such a museum is contained in the Appendix, p. 255. Where self-contained museums are not possible, special rooms for children in the general public museum should be provided.

The Framework Exhibition is, of course, only one possible manner among many others of utilizing the wealth of information and of enjoyment contained in museums for the benefit of children. No doubt that contacts with exhibits in the established manners, in form of loans of single specimens to schools and of visits of senior children to small exhibitions, should be further developed and made use of by as many schools as possible.

REFERENCES AND NOTES

1. Parsons, T. H., *An Introduction to the Theory of Perception*, Cambridge, 1927. Sherrington, C., *The Integrative Action of the Nervous System*, New York, 1906. Morgan, L., *Habit and Instinct*, London, 1896.
Jones, Wood, F., *Arboreal Man*, London, 1916.
Janet, P., *L'évolution de la Mémoire et de la Notion du Temps*, Paris, 1928.

2. " The goal of evolution was always in the direction of a broader outlook, a greater capacity to anticipate change . . ." (Dorsey, G. A., *Why we*

behave like Human Beings, New York, 1925. According to Forel the response of ants to stimuli is nine-tenths automatic and one-tenth intelligent. (Quoted by Thouless, R. H., *General and Social Psychology*, London, 1937.)

" If any marked further advance is to be achieved man must learn how to resolve the ' scheme ' (the legacy of his past experiences) into elements, and how to transcend the original order of occurrence of these elements." (Bartlett, F. C., *Remembering*, Cambridge, 1932, p. 301).

3. In the years preceding 1939, Sir Harry Lindsay, the director of the Imperial Institute, Kensington, London, devised special techniques for imparting knowledge to young people. There was the " Travelogue " which led children under the guidance of an expert along exhibits originating from one country or area, and there was " The Story " concerning specimens illustrating stages in the development of an industrial process. Another instance of synthesis method has recently been reported from the Glasgow Art Gallery and Museum. For " Special Lessons for Secondary Schools " they arranged on the platform of a room of the museum a small exhibition, illustrating the history of a craft or of costume, etc. Finished products, raw materials and tools connected with the subject were exhibited ; to them were added charts, and slides were projected on a screen near the platform. (Compare *The Museums Journal*, London, June, 1944).

4. In her report on the uses of an exhibition of " Textiles ", prepared, in 1942, by the present writer and loaned to the Junior Elementary School at Histon, near Cambridge, the headmistress of the school wrote as follows : " The exhibits which involved *action* were the most popular, i.e. carder, spinning wheel, spindles and looms . . . Pieces of fabric which could be handled aroused considerable interest . . . the framed exhibits did not attract the children's attention."

It is beyond the scope of this book to list the numerous opportunities for activities offered to children in American museums, but mention may be made of two controlled experiments the results of which stressed the importance of the active co-operation of children on their visits to museums :

" . . . where interest had been aroused and the children had been motivated to look and investigate . . . results were good. Where the instructor's talk displaced the children's activity, the results were poor. It is as if information had been poured into a sieve . . ." Bloomberg, M., op. cit. (p. 169, n. 18).

Another publication in the same series (No. 15) recommended that lectures connected with children's visits to museums should be reduced during the visit but should be given at school as an introduction to the experiences in the museum. Melton, Goldberg-Feldman and Mason, op. cit. (p. 169, n. 18).

Bloomberg based her work with children in the museum on the lines generally proposed by Thorndike in his *Educational Psychology*, vol. I, pp. 297 sqq., according to which first interest must be aroused in the learner ; if to the interest is harnessed purpose, effort is likely to follow.

Compare : Winser, Beatrice, *Summary of Methods used in Museums in this country (America), in Canada and Hawaii*, Newark, New Jersey, 1936, where a plea is put forward for both synthesis arrangements and active co-operation of the children. They should be given " an idea of functions and of the coherence of things ". Among the thirty museums referred to in this report was the Museum of Brooklyn, where a so-called " progressive job " method was applied. There, small children of 3 to 4 years already benefited from the museum services ; they were given materials and tools to handle and to play with. Children between the ages of 5 to 13 used specimens as stimuli for creative games. The younger ones staged plays entitled " We are going to Africa " and " We are Indians " ; their seniors were given as themes for plays, " A trip

on the Nile : we are turning back the hands of time ", and " We conquer the New World with our own hands ".

These activities are supposed to add considerably to the children's imagery and by the element of adventure contained in activity to help them to overcome difficulties of expression.

In this connection one is reminded of what Sir Richard Livingstone wrote op. cit. (p. 202, n. 3) p. 49, on the division in the existing (school) education between practice and theory, and the resulting division in life between action and thought; of the " lifeless phantoms " represented by history, literature and philosophy in schools.

5. Among the general conclusions arrived at by the Museum Education Department at Glasgow is the following paragraph : " Teachers are unanimous that the lessons should be taken in a class-room, away from all the distractions of the public galleries ", *The Museums Journal*, London, June, 1944.

The experiences of the present writer point into the same direction ; compare Appendix, pp. 245–6.

In his *Report* of 1938, op. cit. (p. 181, n. 1), p. 115, F. S. Markham quoted teachers in whose opinion the museum " shows a lot of material that is no earthly use to us, and does not show us what we would like it to show ".

6. " Most of the topics in which we are interested concern the behaviour of people and things in the world. Accordingly we need to know how they behave." Stebbing, L. S., *Thinking To Some Purpose*, London, 1939, p. 27.

" The disequilibrium which we observe to-day at the basis of contemporary society is occasioned by a disquieting backwardness in the sciences of Man, which should give him power over himself, as compared with the sciences of Nature, which in three centuries have given him power over things . . ." Coutrot, quoted by Chakotin, S., *The Rape of the Masses*, London, 1940, p. 1.

Advocating humanistic studies (literature, history, politics) in the secondary school, Sir Richard Livingstone referred to them as " visions of human life . . . record of (human) achievements . . . indispensable to all men as men and to all citizens as citizens . . .", op. cit. pp. 34–5.

" The most important service which the art gallery and museum can render to the child is not to equip him to be an artist or a connoisseur but a better citizen. To fill him with an active but constructive discontent with the conditions that prevail to-day . . ." Rothenstein, J., *The Museums Journal*, London, October, 1937.

Compare Wells, H. G., *The Story of a great Schoolmaster* (Sanderson, headmaster of Oundle, planned the creation at his school of a " Temple of Vision ", in which man's progress and his greatest deeds were to be illustrated).

7. The sense of touch as a means of assimilation of knowledge is hardly utilized in school teaching, in spite of the stress laid on it by some leading educationalists. It has become a major means of education in the infant school, owing to the efforts of Maria Montessori, who, like her mentor Dr. Seguin and Anna Sullivan, the teacher of Helen Keller, advocated its importance in reaching the nervous system. In the Laboratory School of the University of Chicago, that creation of John Devey, the hand and other motor organs of the child in connection with the eye were regarded as the best instruments through which children most easily and naturally gain experience.

8. " Activities which bring the child into intimate contact with material things are more . . . effective than conversation in provoking problems." Isaacs, S., *Intellectual Growth in Young Children*, London, 1930, p. 45.

" Problem-Acting " around museum specimens, i.e. objects originating from distant periods or countries, has the advantage of being dissociated from habit and prejudice. Judicial criticism has its best chances in matters free of incidental attitudes towards them of particular social groups and of personal

emotions. Those who may question the need of museum exhibits where all specimens could be collected or created by the children themselves, should consider the superior quality of the museum specimen, if compared with school handicrafts or casual finds of children. The genuineness of the museum exhibit will sharpen the sense for the appropriateness of materials and for æsthetic qualities.

Compare Herbert Read's plea that education should provide opportunity for children to associate feelings of pleasure with what is good and feelings of pain with what is evil. *The Education of Free Men*, London, 1944.

The potential influence of physical movement on mental capacity is taken into account by Spearman, C., *Abilities of Man*, London, 1932, where reference is made to the influence of blood supply and the function of endocrine glands on ability and speed of associations. McDougall, W., *Outline of Psychology*, London, 1923, wrote of the liberation of mental energy by chemical change in the nervous system, which is stimulated by movement.

Through play-acting, children will recapitulate a way of human behaviour which led the ancient Greeks to represent reminiscences and anticipations of actions in gestures of a dance, of the *dromenon* (" the thing done ") which on the shores of the Mediterranean eventually was rationalized into the drama, but which in its substance remained alive wherever people of primitive culture live. To them rhythmic movement of limbs and mimicry are aids in circumstances demanding special exertion.

Miller, N., *The Child in Primitive Society*, London, 1928, p. 139, referred to " mimicry play-acting as a prelude to the true life-duties of the individual ".

An approach to history through the history of everyday things, tools, means of transport, etc., was systematically applied in two early experimental schools, at the University of Chicago and at Maltington School, Cambridge, and is now being encouraged in progressive Training Colleges.

The alertness and keenness stimulated in the described activities may, possibly, be harnessed to the learning of the three " R's " in cases of children who find difficulties in coping with the abstract tasks. Vernon, M. D., in *The Experimental Study of Reading*, Cambridge, 1931 (pp. 154–5), referred to the reading disability of children as a disability in synthesis, a failure in associative processes relating perceptive, auditory and kinæsthetic factors. She further reported (p. 126) of Dallenbach, another psychologist's observation that an improvement in the visual apprehension of young children is accompanied by a general rise in school ability.

The " integral method of education " recommended by Herbert Read in his *Education through Art*, London, 1944 (see especially pp. 216–219), may be quoted in this connection. He wrote of the education " of those senses upon which consciousness and ultimately the intelligence and judgement of the human individual are based ".

CONCLUDING NOTES

The museum has a history steeped in a past of thousands of years. Yet as a public institution of a present-day society it is in its infancy, at any rate in Europe.

The scene is set for the evolution of the museum. There are the numerous buildings filled beyond capacity with interesting and beautiful objects. There are the men and women eager to acquire knowledge, probably more eager than any masses before

them to obtain a share in the knowledge of which their epoch possesses stores unprecedented. If adequately prepared the museum can serve as a major means of bridging the gulf between the masses of the people and a wealth of information and spiritual enlightenment. If awakened to its potentialities the museum is able to impart knowledge of considerable complexity and subtlety to people of limited preparation for study and limited experience in thinking. The visual and tactile three-dimensional object in the museum appeals to the intellectual curiosity of people as well as to their emotions and may serve as an aid in harnessing the two together to an experience of spontaneity and creativeness comparable with an artistic one, whatever the character of the specimens may be.

The reality of the museum specimen invites scientific approach, accurate observation and independent judgement. The environmental " wholeness " of an adequately selected and presented exhibition is capable of capturing the thoughts and feelings of people in the manner of a dramatic performance, or of the dramatic experience implied in a situation in the reality of life.

If education is to fulfil its tasks in our time it will have to expand far beyond vocational training and help people to develop faculties which seem most urgently needed at this stage of human history. We need knowledge of a wide-flung net of facts bearing on our world-citizenship, and we need, above all, an adjustment of our mental capacities that will enable us to comprehend, to assimilate and to apply our knowledge. The nineteenth century has contributed much to the competence of man in matters concerning the control of the universe. The twentieth century will leave a debt unpaid if it will allow man to remain in his present state of spiritual and emotional incompetence with regard to human affairs—to the control of his own mind and of human relationships.

The Liberal World has opportunity for a grand adventure : for the bid to control a world of mechanized matter by aid of the free growth of human personality. There the museum may develop to a valuable instrument of education. It is unfettered by traditional curricula and examinations. It has access to human spontaneity, that spring of goodness, inventiveness and skill.

The exhibition of the art of China, or, for that matter, of any other community distant from the spectator, can claim to be called successful if the imagery aroused in people be vivid enough

to maintain itself for some time and to unfold to vision, which in its turn may contribute to the shaping of a philosophy of life or become a call to action. An exhibition of relics of human life of the past can claim to be called successful if it evokes in people a consciousness of human evolution, of human unity, of common human problems.

If compared with the subtlety of contemporary machinery human imagination appears as blunt as a prehistoric stone implement ; the orbit of human consciousness often seems in keeping with the narrow reality of a mediæval community. Every means must be used to remedy this ill-adaptation which would seem to lie at the basis of the unsettled conditions in our world. No means which might contribute to our adaptation to reality must be neglected. The museum may be one such agent. An omission of utilizing these potentialities in the reconstruction during the years to come will be a sin against democracy. The reconstruction of the museum to a functioning public institution is not a matter of concern merely to curators : it is the responsibility of the educationalist, of every socially minded person, of every citizen conscious of the implications of our time.

APPENDICES

PAGES

APPENDIX TO PART I 224

Extracts from contemporary accounts of sixteenth-, seventeenth, and eighteenth-century collections 224

Sansovino, F., *Venetia, Citta Nobillissima e Singolare,* Venice, 1663, pp. 393 : the collection of Conte Girolamo Canazza . . 224

Borghini, R., *El Riposo,* publ. in Milan, 1807, pp. 14/15 : the Vecchietti collection, near Florence 225

Misson, F. M., *Nouveau Voyage d'Italie,* La Haye, 1722–7, pp. 160/1 : a seventeenth-century account of the collection of Archduke Ferdinand of Hapsburg, Castle Ambras 226

Browne, E., *A brief account of some Travels in divers parts of Europe,* London, 1627, pp. 95/6 : the imperial collection in Vienna . 227

References to the Medici collection in Florence :—

Evelyn, J., *Diary and Correspondence,* publ. London, 1857 . . 228

Ray, J., *Travels through the Low Countries, Germany, Italy, France . . .* London, 1738, pp. 285–6 229

Misson, F. M., *A New Voyage . . .,* English translation, London, vol. II, p. 185, London, 1699 230

Ray, J., op. cit. above, pp. 186, 200, 209–11 : some Italian collections . 231

The Gentleman's Magazine, London, July, 1748 : the collection of Sir Hans Sloane 232

Some notes from Saunier's account of the conquests of works of art which were made by the armies of Napoleon Bonaparte . . 233

APPENDIX TO PART II 235

The "*Goodness*" of a Configuration or Presentation of Specimens . 235

Solutions introduced by museum workers 235

Suggestions resulting from experimental research :—

Experiments conducted by the present writer 236

Experiments conducted in American museums 246

Findings of psychologists on problems of visual perception . 249

Some suggestions for future experiments 250

A syllabus for a course of training in Curatorship . . . 252

A Young People's Museum 255

APPENDIX TO PART I

THE HISTORY OF THE MUSEUM

EXTRACTS FROM CONTEMPORARY ACCOUNTS OF SIXTEENTH-, SEVENTEENTH-, AND EIGHTEENTH-CENTURY COLLECTIONS

From Sansovino's *Venetia, Citta Nobillissima e Singolare*, Venetia, 1663.

DE I PALAZZI PRIVATI ET DE LORO ORNAMENTI LIB. IX. 393

. . . . sopra esso Canale, ch'è fiancheggiato da spatiosa fondamenta d'ambi le parti, si vede il Palazzo del Conte Girolamo Cauazza, con facciata tutta di marmo, di vaga Architettura, & se bene pare alquanto ristretto, nondimeno, ripartito di dentro in tre suoli, viene ad'hauere, oltre il commodo de mezadi, stanze alte aßai riguardeuoli; quelle di mezzo, sondo abbellite da portoni, e porte guarnite con fregio, & alette di marmo bianco, e nero, e con Cartelle di paragone: Le Nape de Camini adorne de stucchi Eccellenti, e tutto il resto corrisponde con politura senza pari, & con mobigliamenti ricchi, & honoreuoli quanto si possono desiderare in Casa priuata; godendo il terzo suolo più alto, anch'egli pur degnamente fornito, la vista ampissima di due gran spatij di Laguna, fino à Monti Euganei. Ma quello, in che egli si distingue da ogn'altro, è l'appartamento basso, aggiustato da detto Conte con ammirabile semitria, resi hauendo luochi di delitia, li destinati à gl'vsi inferiori domestici; & illustrata con cinque ordini di cose rare, la Galeria per la quale se ve entra. In effetto, nel metterui piede, resta rapito l'occhio, e l'animo insieme, dalla bianchezza non meno del Cielo, d'altezza straordinaria, & del d'intorno, lauorato à stucchi, festoni, figure, & altre vaghezze, che dal corso di molti fori, dalla prospettiua diletteuole, cento paßa andanti lontana, da gl'adobbi Nobili, che vi rilucono, e dalla varietà d'oggetti piaceuoli da tutte le parti, che si presentano. Dal lato destro, e sinistro ne Nicchi sono collocate Statue, e fra essi sopra modioni, teste, & busti. Vn poco più all'in giù, ouati dorati di Cipresso, dipinti da migliori Pittori della Città, come dal Caualier Liberi, Pietro Vecchia, Ruschi, & altri. Al di sotto d'vna fascia intagliata, che fa diuisioni, sono trameschiati baßi rileui di prèzzo; esquisite Teste antiche su piedestalli: Quadri grandi di buone mani, sendone più alto quattro de retratti al naturale di Giorgione, con particolar diligenza elaborati, & sotto le balconate, altri quadri d'intaglio, come anco de Ottangoli pendenti dalla Cornice alta.

In Nicchio grande alla destra, e Loggiato Nettuno, à cui piedi si auuiticchia vn Delfino, & al piano stanno riposti due Leoni di marmo fino. Rincontro alla sinistra, fuori del dritto corso della Galeria, doue giace vn Pozzo ottangolare, di pietra da Verona, circondato da vasi di mirto; due rami di scala formano vn vacuo conuertito in Grotta dall'incrostatura de muri, composta di Capami, Giazuoli, & di conchiglie di mare di tante sorti, e colori, che danno diletto per se stesse, per l'artificio, con che sono distribuite, & per gl'aspetti diuersi, anche humani, che figurano; Et qui pure rimpetto al sudetto Nettuno è cauato vn Nicchio tutto vestito di Madriperle, oue spicca vn gruppo di due statue Adone, cioè, & Venere, che s'abbracciano, mirabilmente scolpito; chiusa rimanendo la Grotta, da ferrata à gigli tutta dorata, perche niente manchi di leggiadro, e non commune, come li sono li Banchetti di Veluto, e seggie simili, con portiere di doppio raso alle porte, che guarniscono gl'altri seguenti luochi ancora.

A Capo la Galeria, s'entra in vn Salato, con sei nicchi, sei porte, e quattro finestre, tutto pure stuccato di bianco, con macchie tonde di marmo bianco, e rosso di Francia in mezo a festoni. Sopra tauolini di paragone, e d'Ebano, rimessi d'Auorio, sono disposte scolture antiche, & moderne; Bronzi di getto Eccellente, & altre rarità, in particolare vn'Osso Scio intiero, con la gamba di Gigante, accreditato dall'oßatura steßa humana, di grandezza strauagante. Nel vuoto d'vna delle porte sono incassate molto artistamente quattro gran lastre de specchi di sei quarte l'vna, con fornitura di metallo dorato, le quali restituiscono li oggetti, che si presentano, col vantaggio d'altretanto sfondro, in modo, che ogn'vno, che non ne hà hauuto precedente notitia, resta soprapreso, & bene spesso ricerca per doue s'entra nell'altre stanze, da detti specchi oggettati. Inuentione curiosissima, ritrouata dal detto Conte, che ha hauuto altri imitatori dipoi, con suario però differente assai.

Borghini, R., *Visit to El Riposo*, near Florence, a sixteenth-century account of a private collection, published in Milan in 1807, pp. 14–15.

. . . . . da Firenze intorno a tre miglia, valicato il chiarissimo fiumicello dell' Ema a Vacciano. Siede il palazzo fra l'oriente ed il mezzogiorno riguardante, alquanto rilevato dal piano, sopra un vago poggetto, di sì diversi frutti, e di tante viti ripieno, che oltre all' utile, che se ne cava, è una maraviglia a vederlo. Quivi sono amenissime e fruttifere piagge: boschetti di cipressi e d' allori, che colle folte ombre destano in altrui una solitaria riverenza: acque chiarissime, che mormorando soavemente si fanno sentire: e pratelli di freschissima e minutissima erba coperti, e di molte maniere di vaghi fiori per entro dipinti e segnati. Ha il bene compartito palagio ampie sale, pulite ed ornate camere, luminose logge, acqua freddissima in gran copia, e volte piene di ottimi vini. Ma quello, che fa ciascuno intento a riguardare, sono le rare pitture e le sculture che vi si veggono; perciocchè vi è di mano di Michelagnolo il famoso cartone della Leda (1), e un altro pezzo di cartone pur del Buonarroto, delle guerre di Pisa, che si avevano a dipingere in Firenze nel palagio: di Lionardo da Vinci vi è una testa d'un morto, con tutte le sue minuzie: di Benvenuto Cellini il dise-

(1) Questo cartone di presente è in Firenze nel Palazzo dei Signori Vecchietti.

gno del modello del Perseo di Piazza: di Francesco Salviati quattro carte bellissime: del Bronzino due disegni della sua miglior maniera: del Botticello un bellissimo quadro di pittura: d'Antonello da Messina (1), che introdusse in Italia il lavorare a olio, un quadro, entrovi dipinte due teste: di Giambologna molte figure di cera, di terra e di bronzo, in diverse attitudini, rappresentanti varie persone, come prigioni, donne, dee, fiumi, e uomini famosi: e di molti altri pittori assai cose, che troppo lungo sarei a raccontarle, e particolarmente d'alcuni Fiamminghi paesi bellissimi. Ma di gran maraviglia a vedere è uno scrittojo in cinque gradi distinto, dove sono con bell' ordine compartite statue picciole di marmo, di bronzo, di terra, di cera: e vi sono composte pietre fini di più sorte, vasi di porcellana e di cristallo di montagna, conche marine di piu maniere, piramidi di pietre di gran valuta, gioje, medaglie, maschere, frutte, e animali congelati in pietre finissime, e tante cose nuove e rare venute d' India e di Turchia, che fanno stupire chiunque le rimira. Appresso ad altre stanze, in altra parte del palagio, è un simile scrittojo tutto adorno di vasi d' argento e d' oro, ...

(1) Questo quadro pure è in Firenze nell' istesso luogo. La vita del medesimo Pittore si legge nel Vasari Parte II.

An account of the collection of the Archduke Ferdinand of Hapsburg in Castle Ambras, Tirol, by the French traveller F. M. Misson, who visited the castle in the year 1687.

160 VOYAGE D'ALLEMAGNE. 161

On nous a conduits d'abord dans une aſſez grande ſale, qui eſt une eſpece d'Arſenal, dont à la verité les armes ſont plus curieuſes qu'utiles. On nous y a fait remarquer, entre autres choſes, la lance extraordinairement grande grande & peſante, de laquelle l'Archiduc Ferdinand ſe ſervoit dans les tournois. Ils diſent que ce Prince * arreſtoit un carroſſe à ſix chevaux allant à toute bride, en le prenant par un des rayons de la roüe : Qu'il rompoit de ſes mains deux écus joints enſemble, & je ne ſçay combien d'autres choſes prodigieuſes, plus difficiles à croire que l'hiſtoire de Frederic.

Nous avons eſté de cette ſale dans une galerie où l'on voit pluſieurs Princes ſur leurs chevaux favoris, avec toute l'armure, & tous les ornemens qu'ils avoient dans les tournois. On y garde auſſi la peau d'un ſerpent, qui eſtoit long de quinze pieds, & qui a eſté pris auprés d'Ulm, ſur le bord du Danube. Au bout de cette galerie, on entre dans une chambre toute remplie de dépoüilles, & d'armes priſes ſur les Turcs. Un Bacha, & un Aga des Janniſſaires ſont repreſentez ſur leurs chevaux, avec le meſme équipage qu'ils avoient quand on les prit. Leurs habits ſont fort riches, & les harnois des chevaux le ſont encore beaucoup davantage. Ils ſont chargez d'ouvrages d'or & d'argent, de pierres fines ; de damaſquinures, & d'autres enrichiſſemens arabeſques.

** On a écrit le meſme choſe de Leonard de Vinci, Peintre de Florence.*

On peut voir dans les Méditations hiſt. de Camerarius, un chap. fort curieux de perſonnes extraordinairement robuſtes, To. 1. l. 2. ch. 5.

. L'Electeur de Saxe, & Roy de Pologne, maintenant regnant, (Sept. 1699.) ne cede guere au plus robuſte de ces gens-là.

Aprés cela, on nous a menez dans une autre galerie, dans laquelle il y a un double rang de grandes armoires, qui ſe joignent par derriere & par les coſtez, & qui occupent tout le milieu de la galerie, auſſi bien que toute la hauteur ; de ſorte qu'il ne reſte qu'un médiocre eſpace, pour ſe promener tout autour. Les trois premieres ſont pleines d'ouvrages d'albaſtre, de verre, de Corail, & de Nacre. Dans la quatriéme, il y a des Médailles & des Monnoyes d'or & d'argent. La cinquiéme eſt garnie de vaſes de Porcelaine, & de terre ſigillée. On voit dans la ſixiéme, pluſieurs petits Cabinets fort riches, d'une marqueterie bien travaillée ; & les layettes ſont remplies de Médailles, & de petits ouvrages d'agathe & * d'ambre-gris.

** Quelques perſonnes qui méritent bien qu'on les écoute, s'étant étonnées, lors de la 1. Edition de ce livre, de ce que je dis icy de l'Ambre-gris ; cette matiere étant ſelon eux, difficile à eſtre miſe en œuvre, & les morceaux en eſtant toujours fort petits ; Je diray ici deux choſes ſur cela.*

La premiere eſt, que le fait eſt comme je l'ay avancé. Ce n'eſt point une matiere d'examen ; c'eſt un fait, contre lequel il n'y a point à diſputer. La ſeconde choſe eſt, que ces gens-là ſe trompent eux-meſmes dans ce qu'ils avancent. M. Souchu de Rennefort, dans la deſcription de Madagaſcar qu'il publia en 1688. dit qu'on avoit trouvé dans cette Iſle un morceau d'Ambre-gris du poids de dix-huit onces. Garcias d'Orte & Medecin Portugais, dit en avoir vu un de quinze livres : & M. de la Macchu, homme curieux & ſavant, parle de morceaux bien plus grands, dans le Traité qu'il en a écrit, & cite ſes Auteurs, anciens & modernes. D'ailleurs, rien n'empeſche que cette matiere ne ſoit miſe en œuvre.

There followed an account of the contents of the remaining fourteen cases in which specimens were grouped according to their material or their kind : ancient weapons, natural curiosities such as plants and animals, objects made of wood, ivory and feathers, manuscripts, keys and locks, semi-precious stones shaped into trees and animals, clocks, musical instruments, metals and minerals, vessels of a great variety, partly consisting of pure gold and studded with jewels, antiquities such as urns and idols. In addition to the specimens in the cases there were many others fastened to the ceiling and to the walls. After having described what he had viewed in the large hall to which he referred as " a kind of arsenal ", M. Misson mentioned the library, the adjacent gallery, where ancient statues, busts and other antiquities were housed, and several rooms decorated with costly paintings and wall-hangings.

From Browne, E., *A brief account of some Travels in divers parts of Europe*, London, 1627, pp. 95–6. (With reference to the imperial collections in Vienna).

The *Rarities* of the great Duke of *Tuſcany*, The *Treaſure* of *Loretto*, St. *Mark*, St. *Denis* in *France*, of the Duke of *Saxony* at *Dreſden*, and others, were very ſatisfactory to me. Yet having a fair opportunity, I would not leave *Vienna* without a ſight of the moſt noble *Treaſury* or *Repoſitory* of his Imperial Majeſty ; eſpecially having heard ſo much thereof, and knowing it to be the *Collection* of many ſucceeding Emperours. I therefore took a fit opportunity to remain divers hours in it, and was extremely delighted with the rich and magnificent Curioſities thereof.

In the firſt *Cupboard* or *Caſe* were many noble Veſſels, turned and ſhaped out of *Ivory*, a *Cup* turned by the Emperours own Hand ; another turned by *Ferdinandus* the Third. Gallant *Cups* of *Amber* ; *Spoons* and *Veſſels* of *Mother of Pearl* ; many noble works in *Coral* ; a fine *Galley* in *Ivory*, and *Cups* made out of *Rhinocerot's* horn.

In the ſecond,

An *Elephant* of *Ivory* with a *Caſtle* upon his back, and over the *Caſtle* a *Ship*, with much other fine work in the ſame piece. Two fair *Pillars* of *Ivory* ; good *Baſſo Relievo* in *Ivory* ; a fair *Cranium* or *Deaths head*, and much other variety of *Ivory* work. A *Picture* in *Oyl* of *Ganimede*, by *Corregio*.

In the third,

A fine *Picture* of an *old Man's head* in *Oyl* by *Albert Durer* : great Variety of *Watches* and *Clock-work* in *Silver* : a fine *Centaur* in *Silver*, which is a curious *Watch*.

In the fourth,

More *Watches* and *Clock work* ; a gallant *Ship* of *Silver*, a *Triumphal Chariot*, a *Turk* riding and attended, a *Globe* and a *Sphere* in *Silver*, a curious *Landskip* in *Oyl* by *Corregio*, a *Cupid* by the ſame hand, with a fine Copy of it.

In the fifth,

A curious *Filigrane Handkerchief*, and two fair *Filegrane Plates* brought out of *Spain* by the Empreſs *Margarita* ; an *Indian Basket* of an *Indian* ſort of *Filegrane* mixed with *Birds* ; a *Baſon* of *Agate* finely wrought with ſilver *Craw-fiſhes* in it.

Evelyn, *Diary and Correspondence*, op. cit. (p. 21 n. 15). Entry of the 22nd October, 1644: (with reference to the Medici Collection in Florence).

Under the Court of Justice is a stately arcade for men to walk in, and over that, the shops of divers rare artists who continually work for the great Duke. Above this is that renowned *Cimeliarcha*, or repository wherein are hundreds of admirable antiquities, statues of marble and metal, vases of porphyry, etc.; but amongst the statues none so famous as the Scipio, the Boar, the Idol of Apollo, brought from the Delphic Temple, and two triumphant columns. Over these hang the pictures of the most famous persons and illustrious men in arts or arms, to the number of 300 taken out of the museum of Paulus Jovius. They then led us into a large square room, in the middle of which stood a cabinet of an octangular form, so adorned and furnished with crystals, agates and sculptures, as exceeds any description. This cabinet is called the *Tribuna*, and in it is a pearl as big as a hazel-nut. The cabinet is of ebony, lazuli, and jasper; over the door is a round of M. Angelo; on the cabinet Leo the Tenth, with other paintings of Raphael, del Sarto, Perugino, and Corregio, viz. a St. John, a Virgin, a Boy, two Apostles, two heads of Duerer, rarely carved. Over this cabinet is a globe of ivory, excellently carved; the labours of Hercules, in massy silver, and many incomparable pictures in small. There is another, which had about it eight Oriental columns of alabaster, on each whereof was placed a head of Cæsar, covered with a canopy so richly set with precious stones that they resembled a firmament of stars. Within it was our Saviour's Passion, and twelve Apostles in amber. This cabinet was valued at two hundred thousand crowns. In another, with chalcedon pillars, was a series of golden medals. Here is also another rich ebony cabinet cupolaed with a tortoise-shell, and containing a collection of gold medals esteemed worth 50,000 crowns; a wreathed pillar of oriental alabaster, divers paintings of Da Vinci, Pontorno, del Sarto, an *Ecce Homo* of Titian, a Boy of Bronzini, etc. They showed us a branch of coral fixed in the rock, which they affirm does still grow. . . . In a press near this they showed an iron nail, one half whereof being converted into gold by one Thurnheuser, a German chymist. . . .

21st May [1644]. Visiting the Duke's repository again, we told at least forty ranks of porphyry and other statues [follows a detailed account of pictures and statues viewed in the gallery]. In the Armory were an entire elk, a crocodile, and, amongst the harness, several targets and antique horse-arms, as that of Charles V; two set with turquoises, and other precious stones. Then, passing the Old Palace . . . Here is a magazine full of plate; a harness of emeralds; the furnitures of an altar . . . in massy gold . . . in the middle is placed the statue of Cosimo II; the bas-relievo is of precious stones, his breeches covered with diamonds. There is also a King on horseback, of massy gold, and an infinity of such rarities.

Compare Pl. X.

Ray, J., *Travels through the Low-Countries, Germany, Italy, France, with curious Observations*, Natural, Topographical, Moral, Physiological, etc. (made in 1663), London, 1738. Extracts from his account of the Medici Collection in Florence, pp. 285–6.

The gallery of the *Gr. Duke.*

> The *Great Duke*'s gallery is in the old palace, a handſome pile of building. Under ground, as it were, in cellars, are the ſtables: above them fair *portico's* or cloiſters to walk in. Above the *portico*'s are ſhops for all manner of artificers to work in for the *Great Duke.* The uppermoſt ſtory is the *gallery* properly ſo called; where, in an open walk free for any man to come into, ſtand many ancient, and ſome alſo modern ſtatues, Round about on each ſide this walk, hang the pictures of many Princes and other perſons, who have been famous in the world for learning or valour. Among the reſt we noted the pictures of of *Queen Elizabeth*, *King James*, *Oliver Cromwel*, and *Johannes Acutus*, before remember'd.
>
> The chief rarities are lock'd up in cloſets, of which we ſaw four. The things which in our tranſient view we took more eſpecial notice of were, a huge terreſtrial globe, and a *Sphæra armillaris* bigger than that. A branch'd candleſtick including many little figures of ivory, or white wax appearing thro' the tranſparent amber: an engine counterfeiting a perpetual motion, like thoſe of *Septalius* at *Milan.* Several ſtone-tables, ſo curiouſly inlaid with ſmall pieces of precious ſtones of divers colours, as to compoſe figures of plants, fruits, and flowers, birds, beaſts, and inſects, ſo natural and to the life, that ſcarce any picture drawn by the hand can excel them. One of theſe, the beſt and richeſt that we have any where ſeen, both for the excellency of the workmanſhip, and coſtlineſs of the materials, being ſet with many rubies and pearls, they valued at 100000 *Florence Scudi*, which is more than ſo many *Engliſh* crowns. Several rich cabinets. That of the greateſt value, which they rated at 500000 *Scudi*, was rich ſet with gems of the firſt magnitude; a pearl of an enormous greatneſs, but not perfectly round; ſeveral topazes almoſt as big as walnuts, large rubies and emeralds, beſides other ſtones of inferior note, ſtuds of amethyſt, *&c.* Here we alſo ſaw the nail, pretended to be one continued body, half iron, half gold, part of the iron having been turned into gold by one *Thurnbauſſerus*, an alchymiſt of *Baſil*, before-mentioned. . . . . .

There followed an account of the Armory where the armour of many "great persons" and kings of Europe could be viewed next to armour and weapons from many distant lands. The Duke's wardrobe, or Argenteria, full of rich plate, was described and by-rooms containing stuffed animals and skeletons.

From F. M. Misson's description of the Collections in the Great Duke's (of Medici) Palace in Florence. English translation, London, 1699, vol. II, p. 185.

The moſt precious and valuable Rarities are kept in the Octogonal Room, call'd the † *Tribune*, which is twenty Foot in diameter, and is cover'd with an arch'd Dome. The Floor is pav'd with ſeveral ſorts of Marble artificially laid together; the Walls are hung with Crimſon Velvet, beautified with an infinite number of rare Ornaments; the Windows are of Cryſtal; and the inſide of the Dome is overlaid with Mother of Pearl. Nothing is admitted into this Place, but what is of great Value and exquiſite Beauty. You have doubtleſs read, in *Tavernier's* Travels, the Deſcription of that lovely * *Diamond* which juſtly claims the firſt Rank among the Jewels of this Cabinet. Among other Rarities, theſe deſerve to be mention'd: an antique Head of *Julius Cæſar*, of one entire Turquoiſe, as big as an Egg; a Cupboard full of Veſſels of Agat, *Lapis Lazuli*, Cornelian, and Chryſtal of the Rock, the whole garniſh'd with Gold and fine Jewels; a large Table and Cabinet of inlaid Work, wholly compos'd of Oriental Jaſper, Chalcedony, Rubies, Topazes, and other Precious Stones, admirably well wrought; a Collection of very rare Medals; a prodigious number of antique Pieces of carv'd and engrav'd Work, very entire, and extremely well kept; ſelect Pictures, ...

**This Diamond weighs a hundred thirty and nine Carats and a half. 'Tis pity ſays* Tavernier, *that the Water or Luſtre of it approaches to a Citron-colour.*

An account of some of the numerous "Collections of Curiosities" in Italy visited in the year 1663 by the English traveller John Ray and described by him, op. cit. (p. 229), pp. 186–7.

From *Vicenza* we journeyed to *Verona*, a fair, large populous city, and thought to contain 70000 souls. It is ſtrong by ſituation, and extraordinary fortified with walls, baſtions, towers, bulwarks, and deep ditches full of water. Here we ſaw ſeveral cabinets of collections of natural and artificial rarities. 1. That of ſeignior *Mapheus Cuſanus* an apothecary, wherein were ſhewn us many ancient *Ægyptian* idols, taken out of the mummies, divers ſorts of petrified ſhells, petrified cheeſe, cinnamon, ſpunge and muſhromes. A jaſper ſtone and an agate having chryſtal within them. Stones having upon them the perfect impreſſion or ſignature of the ribs and whole ſpines of fiſhes. A *Catapulta* of braſs found 1656, about *Trent*. Several curious *entaglia's* or ſtones engraved with figures of heads, &c. An ancient *Roman* gold ring. A good collection of ancient *Roman* coins and medals, as well conſulary as imperial, beſides modern medals. A ſtone called *Oculus mandi*, *n. d.* which when dry ſhews cloudy and opake, but when put into water, grows clear and tranſparent. An account of this ſtone may be ſeen in the *Hiſtory of the Royal Society*, brought in by Dr. *Goddard*. Among his medals we obſerved a *Maximinian* and a *Diocleſian*, with this on the reverſe inſcribed, *Veronæ Amphitheatrum.*

2. That of ſeignior *Muſcardo*, a gentleman of *Verona*, a civil and obliging perſon. He alſo hath a very good collection of ancient *Roman* medals, among which he ſhew'd us an *Otho* of gold, and told us that thoſe of braſs were all counterfeit, there having never been any found of that metal. Many ſorts of lachrymal urns and lamps, great variety of ſhells and ſome fruits and parts of plants petrified. Several exotic fruits and ſeeds: the ores of metals and minerals: gems and precious ſtones in their matrices as they grew: *Lapis obſidianus* and a kind of ſtone called *Adarce*. But becauſe there is a deſcription of this *Muſeum* publiſhed in *Italian*, I ſhall not deſcend to more particulars, but refer the reader thither.

3. The *Muſeum* of ſeignior *Mario Sala* an apothecary, containing only ſome reliques of *Calceolarius*'s *Muſeum*, printed many years ago.

From *The Gentleman's Magazine*, London, vol. XVIII, July, 1748.

Prince and Princeſs of Wales *viſit Sir* Hans Sloane.

An Account of the Prince and Princeſs of Wales *viſiting Sir* Hans Sloane.

DR *Mortimer*, ſecretary to the Royal ſociety, conducted their Royal Highneſſes into the room where Sir *Hans* was ſitting, being antient and infirm. The Prince took a chair and ſat down by the good old gentleman ſome time, when he expreſſed the great eſteem and value he had for him perſonally, and how much the learned world was obliged to him for his having collected ſuch a vaſt library of curious books, and ſuch immenſe treaſures of the valuable and inſtructive productions of nature and art. Sir *Hans*'s houſe forms a ſquare of above 100 feet each ſide, incloſing a court; and three front-rooms had tables ſet along the middle, which were ſpread over with drawers fitted with all ſorts of precious ſtones *in their natural beds, or* ſtate as they are found in the earth, except the firſt, that contained ſtones formed in animals, which are ſo many diſeaſes of the creature that bears them; *as the moſt* beautiful pearls, which are but warts in the ſhell fiſh; the *bezoars*, concretions in the ſtomach; and ſtones generated in the kidneys and bladder, of which man woefully knows the effects; but the earth in her boſom generates the verdant *emerald*, the purple *amethiſt*, the golden *topaz*, the azure *ſaphire*, the crimſon *garnet*, the ſcarlet *ruby*, the brilliant *diamond*, the glowing *opal*, and all the painted varieties that *Flora* herſelf *might wiſh to be deck'd with: here* the moſt magnificent veſſels of cornelian, onyx, ſardonyx and jaſper, delighted the eye, and raiſed the mind to praiſe the great creator of all things.

When their Royal Highneſſes had view'd one room and went into another, the ſcene was ſhifted, for, when they returned, the ſame tables were covered for a ſecond courſe with all ſorts of *jewels*, poliſh'd and ſet after the modern faſhion; or with *gems* carv'd or engraved; the ſtately and inſtructive remains of antiquity; for the third courſe the tables were ſpread with *gold* and *ſilver ores*, with the moſt precious and remarkable *ornaments uſed in the habits* of men, from *Siberia* to the Cape of *Good Hope*, from *Japan* to *Peru*; and with both ancient and modern *coins* and *medals* in gold and ſilver, the laſting monuments of *hiſtorical facts*; *as thoſe of a Pruſias*, king of *Bithynia*, who betray'd his al-
B lies; of an *Alexander*, who, mad with ambition, over-run and invaded his neighbours; of a *Cæſar*, who inſlaved his country to ſatisfy his own pride; of a *Titus*, the delight of mankind; of a Pope *Gregory* XIII. recording on a ſilver medal his blind zeal for *religion*, in perpetuating thereon the *maſſacre* of the
C *proteſtants* in *France*; as did *Charles* IX. the then reigning king in that country; here may be ſeen the coins of a *king* of *England*, crown'd at *Paris*; a medal repreſenting *France* and *Spain*, ſtriving which ſhould firſt pay their obeiſance to *Britannia*; others ſhewing the effect of popular rage, when overmuch oppreſſ-
D ed by their ſuperiors, as in the caſe of the *De Witts* in *Holland*; the happy deliverance of *Britain*, by the arrival of King *William*; the glorious exploits of a Duke of *Marlborough*, and the happy arrival of the preſent illuſtrious *royal family* amongſt us.

E The gallery, 110 feet in length, preſented a moſt ſurpriſing proſpect; the moſt beautiful *corals*, *cryſtals*, and figured ſtones; the moſt brilliant *butterflies*, and other inſects, *ſhells* painted with as *great variety as the precious ſtones*, and feathers of *birds* vying with gems; here the remains of the *Antediluvian* world
F excited the awful idea of that great cataſtrophe, ſo many evident teſtimonies of the truth of *Moſes*'s hiſtory; the variety of animals ſhews us ÿ great beauty of all parts of the creation.

Then a noble viſta preſented itſelf thro' ſeveral rooms filled with books, among theſe many hundred volumes of
G dry'd plants; a room full of choice and *valuable manuſcripts; the noble preſent* ſent by the preſent *French* king to Sir *Hans*, of his collections of paintings, medals, ſtatues, palaces, *&c.* in 25 large atlas volumes; beſides other things too many to mention here.

H Below-ſtairs ſome rooms are filled with the curious and venerable antiquities of *Egypt*, *Greece*, *Hetruria*, *Rome*, *Britain*, and even *America*; others with large animals preſerved in the ſkin; the great *ſaloon* lined on every ſide with bottles filled with ſpirits, containing various animals. The halls are adorned with the horns of divers creatures, as the double-horn'd *Rhinoceros* of *Africa*, the foſſil deer's horns from *Ireland* nine feet wide; and with weapons of different countries, among which it appears that the *Mayaleſe*, and not our moſt *Chriſtian* neighbours the *French*, had the honour of inventing that butcherly weapon the *bayonet*. Fifty volumes in folio would ſcarce ſuffice to contain a detail of this immenſe muſeum, conſiſting of above 200,000 articles.

Their *royal highneſſes* were not wanting in expreſſing their ſatisfaction and pleaſure, at ſeeing a collection, which ſurpaſs'd all the notions or ideas they had formed from even the moſt favourable accounts of it. The Prince on this occaſion ſhew'd his great reading and moſt happy memory; for in ſuch a multiplicity, ſuch a variety of the productions of nature and art; upon any thing being ſhewn him he had not ſeen before, he was ready in recollecting where he had read of it; and upon viewing the ancient and modern *medals*, he made ſo many judicious remarks, that he appear'd to be a perfect maſter of *hiſtory* and *chronology*; he expreſs'd the great pleaſure it gave him to ſee ſo magnificent a collection in *England*, eſteeming it an ornament to the nation; and expreſſed his ſentiments how much *it muſt conduce to the benefit of learning*, and how great an honour will redound to *Britain*, to have it eſtabliſhed for publick uſe to the lateſt poſterity.

Saunier, C., " Les Conquêtes Artistiques de la Revolution et de l'Empire et les Reprises des Allies en 1815 ", *Gazette des Beaux Arts*, vols. 21–23, Paris, 1899–1901 :—

According to Saunier's account based on contemporary documents, the initiative to levying war indemnities in form of works of art in the conquered countries came from men in authority in the governing body of the " Convention ". Among the official statements of the year 1794 were the following : " By means of courage the Republic has succeeded in obtaining what Louis XIV was unable to obtain for enormous sums of money. Vandyk and Rubens are on their way to Paris and the Flemish School *en masse* will adorn our museums. . . . France will possess inexhaustible means of enlarging human knowledge and of contributing to the perfection of civilization." In a letter dated " 11 ventôse, an V [of the Republic] ", the minister of Justice, Merlin de Domaine, wrote to Napoleon that " the reclamation of works of genius and their safekeeping in the Land of Freedom would accelerate the development of Reason and of human happiness."

In the fifth year of the Republic from the North works of art were followed by transports from Italy. Commissar Thouin, who was in charge of the convoy proceeding first on mule-drawn carriages and then on boats, announced his impending arrival in Paris in a letter addressed to the President of the Directorium in which he wrote as follows :

> . . . Are the precious relics of Rome to arrive like loads of coal and to be put on the quai of the Louvre as if the cases contained nothing but soap ? . . . I admit that the idea of such an arrival pains me. . . . Citizens of all classes of the population ought to be aware that the Government has given them consideration and that all will have their share of the great booty. People will be able to judge what a Republican Government means if compared with the rule of a monarch who makes conquests merely for the pleasure of his courtiers and the satisfaction of his personal vanity . . . (translated from the French by the present writer.)

In the month Thermidor of the sixth year of the Republic the entry of the conquered art treasures was triumphantly celebrated on the Champs de Mars where, with pictures by Raphael, Titian and other masters, the Laokoon, the Apollo of the Belvedere and the Venus of Medici were among the ancient statues paraded on cars lined up in three rows.

For several years workers at the Musée du Louvre, under the leadership of the director-general Vivant Denon, were busily engaged in sifting the arriving objects and arranging them. Credit is due to them for the devotion shown in the restoration of damaged specimens, and in the effort of grouping them according to artistic schools and in a manner more systematic than was usual in museums of their period. It ought also to be noted that there were voices, of Frenchmen of different political parties, who criticized the seizure of works of art throughout Europe and their concentration in Paris.

In 1815, after the battle of Waterloo, the French authorities tried to keep at least that part of the art treasures which was already cata-

logued and exhibited, but their efforts were in vain. The resistance of the officials of the Louvre museum against the allied authorities who came to claim their property may be gained from a passage in a letter of Vivant Denon's son who wrote, " J'ai vu mon père arracher les tableaux du brancard où les commissaires étrangers les avaient placés, les reprendre jusqu'à quatre fois . . . les faire remonter dans la galerie, et les conserver ainsi a la fôrce de persévérance et d'energie. . ."* When, at last, he recognized his helplessness in a contention with the leading powers of Europe and with armed soldiers knocking at the doors of the Louvre, Vivant Denon, at the time, almost seventy years old called out, " Qu'ils les emportent ! Mais il leur manque des yeux pour les voir et la France prouvera toujours par sa supériorité dans les arts, que ces chefs-d'œuvre étaient mieux ici que qu'ailleurs."† (Fig. 2 and Pl. XVIb.)

* " I have seen my father removing persistently . . . pictures from the carts *on which they had been loaded by the foreign commissars* . . . (I have seen *him*) carrying the pictures back to the gallery and trying to secure them by dint of will . . ."

† " Let them carry them away ! They have no eyes to see them ! Masterpieces of art could be kept nowhere more appropriately than in France, the country which always will be leading *in matters of* art."

(Translated from the French by the present writer.)

APPENDIX TO PART II

The Tasks of the Museum in Education

The "Goodness" of a Configuration, or Presentation, of Specimens

The Problem : A number of objects, united in a case or within a room, is to be presented in a manner that would attract the attention of visitors, would impart to them the meaning of the exhibits, and in general stimulate their thoughts and feelings. The presentation may be regarded as successful if the described effect is achieved with accuracy of meaning, within reasonable time, and without undue difficulties on the part of the spectator. In attempting a presentation of specimens of any kind the main aspects of both the exhibits and the potential groups of visitors will have to be taken into account. Any specimen—a painting, an animal skeleton or a bronze vessel—may be considered from the point of view of its contents, or purpose, and of its form, the latter consisting of the shape of a three-dimensional body, of outline and colour. The visitors may be students of a special subject-matter and approach exhibits with a definite pattern of ideas in their mind or they may be laymen relying on the exhibits for building up in their minds ideas on the subject concerned.

The Argument : In the early days of the museum two ways of presenting specimens were prevalent—a crowded accumulation of matter heterogeneous to the degree of haphazard or an unarticulated sequence of homogeneous specimens. In both cases the wealth of the material was bewildering ; and the monotony in the latter case did little towards relieving disquietude. Throughout the decades of attempts at a reform of the museum, methods were sought which would bring about a manner of presentation neither bewildering nor monotonous. (Compare Figs. 9a and 9h).

Solutions introduced by Museum Workers.

The number of exhibits decreased ; a single row of paintings often replaced several rows covering a wall almost completely ; specimens heterogeneous in material and technique but homogeneous by cultural background were grouped together. Sometimes objects were assembled in a manner resulting in a unit of definite pattern of outline. Few of these solutions resulted in a "good" configuration in the sense of our earlier definition. Although containing fewer specimens than before, the row of pictures still had a tendency towards monotony. Although composed of heterogeneous articles a group had not necessarily a claim to being a favourable means of communication. And when objects, homogeneous or heterogeneous, were merged into a group of articulate outline or pattern, the impressiveness of the meaning of the individual object often faded, till it sometimes became a mere part of a decoration. (Compare Figs. 9i and 9j.) If summed up,

these attempts at better ways of presenting specimens appear to have often consisted in an opposition to old-fashioned styles rather than have been consciously conceived and systematically performed.

Among the efforts of the reform-period between the two wars one approach to the problem of presentation of museum specimens invokes special attention for the dangers it comprises. Reference is made to certain presentations affecting novelty by laying exaggerated stress on diagonal or spiral outlines in the configuration of units, by the choice of colourful backgrounds in cases, or by other conspicuous " eye-catches ". Such effects may be contrary to the dull, straight row of objects in the museum of old style, but they may be equal to it in their capacities to bewilder spectators' minds. Whether in charge of a museum for students or for laymen, the curator must not borrow methods from the shop-window decorator. The difference between the two media—shop-window and exhibition in a museum—need not necessarily be measurable in terms of value in favour of the one or the other ; the difference lies in the purpose of each of the two arrangements. The configuration of merchandise is designed to attract the attention of indifferent passers-by in a street, under circumstances of noise and of appearances changing beyond control ; and the task of the shop-window decorator will be fulfilled with the arrest of the attention of the passer-by, even if the result be obtained at the expense of the clarity of thought of the spectator, and the effect flagged quickly. In the museum, spectators are as a rule in a state of greater readiness than in the street to receive impressions, but success will only be achieved if their minds are captured for a sufficient length of time to warrant the articulation of an idea of the meaning of the exhibits and a multiple reaction of the visitor to it, implying recollections of memory and imaginative conclusions.

In the present writer's view, attempts at devising new manners of presentation of museum specimens are likely to bear reliable results only if based on controlled experiments. (Compare pp. 236–252).

Experimental Exhibitions, set up and conducted by the writer in the years 1942–3, by courtesy of the University Museum of Archæology and Ethnology, Cambridge.

The aim of these experiments was to observe the reactions of people to two different manners of selection and presentation of specimens in exhibitions. One was in the style of exhibitions characteristic of the majority of European museums, and referred to as The Old Exhibition (OE), and the other was on lines suggested by some progressive museums and further developed by the experimenter, and referred to as The New Exhibition (NE). In principle, the OE followed the " analytic " school of thought, if any principle at all, whereas the NE was set up on the basis of " synthesis " methods (compare pp. 236–246).

The experimental exhibition to be referred to in this context was dealing with the subject of *Currency* of which, incidentally, a fine collection was available, and was entitled " Money—what is it ? " Two

different presentations were offered to visitors in two separate rooms of the museum.

The Old Exhibition (OE) : a cubicle contained several hundred specimens of currency of communities of primitive culture (in the European past and of present-day communities in Asia, Africa, America and the Pacific area) which were housed in upright cases lining the walls almost from the floor to high up, far above eye-level ; large-sized objects were attached to the walls above the cases and near the ceiling. In theory the grouping was according to geographical area, but owing to the lack of specimens from some areas and to the fact that certain other areas were represented by more numerous specimens than others, the arrangement lacked in balance. Some types of currency were represented by a series of specimens. The labelling was limited to a minimum.

The New Exhibition (NE) : the principle of the arrangement was an evolutionary outline from barter trade to token money in the form of the coin. A few specimens of current British currency, together with charts illustrating the working of money in a modern community, formed the beginning of the presentation. Each type of currency was represented by a single specimen. Photographs showing the people who produced and used some of the exhibited types of currency were added to the objects. All objects were shown at eye-level and were well spaced. Information was offered in captions and in more detailed descriptions contained in small leaflets available for optional perusal.

The procedure of the controlled visits was as follows : the visitors came singly and spent twenty to twenty-five minutes in either the OE or the NE. The inspection of the exhibition was followed by an interview with the experimenter who noted all statements made by visitors as accurately as was practicable in the course of a conversation conducted in an informal tone on the lines of a questionnaire prepared beforehand but not shown to the visitors.* Some visitors supplemented their verbal statements by one or more sketches illustrating their reminiscences of the exhibition. Those who could stay longer were invited to inspect for a few moments the alternative presentation of the exhibition and to add any comparative remarks they wished to make. One month after their visits some people wrote to the experimenter, as all had been asked to do, and stated, in writing and/or in form of drawings, what they remembered of the viewed exhibition.

Ninety-six persons took part in the experiment. Their views may reasonably be regarded as representative of public opinion, since they

* 1. Can you sum up briefly what you saw in the exhibition of Currency ?
2. Can you remember any single objects particularly well ?
3. Did the exhibits you saw call up any ideas in your mind ?
4. What made you come and view this exhibition ?
5. Would you like your friends to see it ?—and for what reasons ?
6. Are you in the habit of visiting museums and exhibitions ?—and why ?
7. Could you suggest any possible improvements in the exhibition you saw? Should there be more objects, or fewer ? Would you like anything altered in the manner of presentation ? Do not hesitate to say anything you like. Your collaboration is wanted for the preparation of the museums of the future.

were people of widely differing ages and interests—men and women with and without academic training, university undergraduates and senior schoolgirls of sixteen to seventeen years.

The limited number of tests did not seem to justify any drawing of conclusions as to the quantitative assimilation of facts under the two different conditions of selection and presentation of specimens, though it may be tentatively suggested that the visitors to the NE comprehended and assimilated a greater number of facts than those to the OE.

In this brief summary the material yielded by the experiments may be best presented in the form of (1) views of people on (*a*) the rank and file of the existing museums, (*b*) on the need for museums in general, (2) reactions of people to certain features in the experimental exhibitions and the correlation of these reactions with the " functions " which collections supposedly fulfilled in the past ; under this heading will be listed the reactions of people to " synthesis " arrangements as opposed to " series " presentation, (3) the effects of different modes of exhibition on people's minds.

In quoting statements made by people the repeating of statements of similar or almost identical contents will be avoided unless they were made by persons definitely differing from each other by age or cultural background. From the figure at the left-hand side of the quotations the age-group and background of the speaker may be gathered. Numbers 1–32 indicate adults with university education ; numbers 49–66 refer to adults without university education ; numbers 33–48 refer to undergraduates, and numbers 67–96 to schoolgirls of sixteen to seventeen years of age.

(*a*) *What do YOU think of the EXISTING CONDITIONS in Museums ?*

3. " It is a pity that museums offer information neither to people interested in a certain subject nor to rambling persons."
6. " They are generally bad . . . physically tiring . . . they demand a mental strain even from those positively interested in a matter."
9. " . . . few people benefit from museums . . . museums should not be regarded as if they were for dead objects only."
15. " Museums, as they generally now are, are wasted. A wretched use is made of them—they say nothing."
17. " It would improve museums if the display of objects was artistic and would catch the eye . . . one would know where to look."
21. " They should be pleasant to the eye . . . better explained . . ."
23. " There should be more space . . . things should be less crammed."
26. " They are too boring . . ."
36. " The usual presentation is satisfactory but for the glass cases and too much labelling."
38. " The ' material side ' of matters is given too much attention in museums. I would prefer to see things which concern ' the inner nature of human life '."
39. " I cannot forget my school visits to dull museums viewed in a rush."
40. " Museums are too crowded with objects, with few things which strike one's eye. It needs a guide to make things more alive——"

42. " Windows are never opened in museums . . ."
50. " One gets easily tired in museums . . . and that church atmosphere . . ."
51. " They are too crowded . . . there is too much to take your eye."
54. " Museum buildings are generally bad . . . I would like to see them plain, clean, aired . . ."
66. " If only there were fewer things . . . less distraction . . . less examples of one kind."
77. " So frequently in exhibitions the exhibits are just put in rows with a card saying where they came from, and one goes out feeling considerably more muddled than when one went in."

One ought to keep in mind that the scene of this experimental brains trust with reversed rôles—with the audience as speakers—was Cambridge, a place of intellectual renown and possessing several museums famous for their fine collections ; moreover, the vicinity of London makes the capital's museums easily accessible to the inhabitants of Cambridge and it is likely that many of these speakers visited museums on the Continent of Europe. Their views, therefore, have a bearing on European museums, if not on museums in general.

(*b*) *What are YOUR VIEWS on the POTENTIAL SERVICES of the MUSEUM?*

1. " The exhibition is more vivid [than a book]."
2. " The visual method is especially suitable for children."
5. " Museums can stimulate artists and craftsmen to better work."
6. " One should combine exhibitions with discussions."
11. " A show gives more pleasure than reading . . . a more comprehensive and comparative idea of a matter . . . at one view."
14. " It is easier to grasp things in a museum than in a written or told description."
15. " The human side of a matter comes out better in an exhibition."
20. " Exhibitions are a good supplement to the reading of books on historical subjects."
21. " It is more living than a book."
33. " One gets more out of an exhibition than from descriptions."
35. " The viewing of an exhibition is less tiring than reading. The actual things are an advantage . . ."
49. " I like to see real objects . . . to use my own judgement."
52. " I go to museums to find romance . . . how other peoples live."
54. " Museums widen your experience . . . kind of educate people in lots of ways. Real objects are more than books."
70. " I think to see exhibitions in museums makes you more curious and you desire to increase your knowledge about the particular exhibit, especially if the subject appeals to you. Museums, I think, should be made more use of for education, as the majority of people learn more from an exhibition than they do reading a book on the same subject."

(*c*) *Which, if any, of the old " FUNCTIONS " are still fulfilled by the modern Public Museum—judging by the reactions of the visitors to these experimental exhibitions?* (compare p. 12).

The visitors condemned " hoarding ".

In connection with the OE of Currency the following statements were made :

" It needs patience to sort out the jumble . . . one should ruthlessly throw out all repetitions."

" There were some beautiful things, but one would not bother to look at all the bits."

" A cluster."

" It would be better to show few things . . . mass embarrasses only."

" It is overloaded."

" The impression I now have, superimposed above any others, of the exhibition, is of a great many small objects . . . crowded together in glass cases."

In comparing the OE with the NE :

" It is easier to take in things in in the NE because it is better spaced . . . it is a great improvement . . . it is less congested."

" The NE is infinitely better . . . you can see each object individually without your eye straying to objects around.

The visitors condemned " boasting ".

" Museum buildings are generally bad. I would like to see them plain, clean . . ."

" . . . that church atmosphere . . ."

The visitors expressed loyalty to humanity as a group (as distinct from nationalistic group loyalty, etc.).

" I am interested in human development."

" They [museums of archæology, ethnology, etc.] show things of the past."

" I am interested in history."

" They give information about human behaviour——"

" I like to see the beginnings of things . . . flint implements . . ."

" I am interested in the methods of living of other people."

" I like to see things of ancient times—where we came from."

They expressed desire to acquire knowledge.

Statements concerning the OE :

" There were no data about the countries where the things were produced and why they were made."

" I would have left normally . . . there is so little explanation . . ."

" The labelling was insufficient ; why are all these things made?—and how are they made?—such a shame—it could be interesting."

" It did not offer sufficient explanation in regard to the value and to the use of the specimens of money . . . whether it was still in use . . . where things came from."

" The exhibition left questions unanswered. What is the purchasing power of those currencies . . . how is it used . . . ? By what sort of people ? "

"There is no explanation . . . what are the values of these currencies? Why are they used in certain places . . . ?"

"For pure curiosity value it was quite good."

"Altogether, I think the exhibition is only of use to experts who know the facts about coins before they see them."

"We were given plenty of facts but no information—very little in the way of dates to connect them."

The following references were made to the NE:

"I learned quite a lot."

"Most interesting and original . . . we need more of such exhibitions to explain matters to the general public."

"The exhibition should be used for schools."

"It conveyed a new idea . . . different systems of currency in different communities."

Several visitors named the informative value of the NE as the reason for their preference for it when compared with the OE:

"I prefer the NE . . . because it explained more."

"This exhibition definitely impressed me a good deal and I learned quite a lot from it."

—*They appreciated the emotional experiences* offered by exhibitions:

"I prefer them [art galleries if compared with other museums] for their colour and design . . . it balances."

"The emotional side comes first . . . the painter sees the more essential features . . . and shows them like a magnifying glass."

"I like to see the texture and colour of objects of art . . . they give the atmosphere of a whole country . . . a whole century . . . I like to feast my eye on a single beautiful thing."

"To see human development gives you a feeling of eternity."

"To see ancient things . . . and to see development . . . and to compare things . . . gives solace and solidity."

—*Synthesis versus Series* (or unordered *Miscellanea*):

(*a*) *The visitors demanded Synthesis Arrangements:*

They said in connection with the OE:—

"There should be photographs of people who used the things . . . there is no general background relating to the mass of details . . . no picture of the social life of the people."

"The more I looked at it the less connection I saw. The objects should be connected by photographs of surroundings and of the people to whom the objects belong."

"Jumping from one thing to another . . . it is hard to keep one's mind on anything. I would not have stopped as an ordinary visitor. It is quite chaotic . . ."

"A thorough muddle."

"Nothing clear to remember."

"One could not focus attention on single things."

"An attack of measles."

" One could not pick out a single object . . . it is just an accumulation of objects."

" It was a strain to concentrate . . . a lot of little objects. I found it difficult to remain concentrated . . . and at the same time I was afraid of missing something . . . it ought to be spaced out more."

" To be frank, I think I got very little benefit from the exhibition . . . I think it is so very little use to be confronted with an array of coins etc. and to be told nothing of their background. One wants to know when they were used, whether any are still in use ; by what sort of people they were used . . . for what purpose they were used ; in fact all the historical background."

" . . . dull objects divorced from their natural setting . . . it required an effort of imagination. All things divorced from their social conditions . . ."

" There is no historical development . . . no photographs of producers and users. Things are taken out of their context."

" I would like to see a development . . . the growth of things."

" It is so monotonous. So many things in straight lines."

" There is no coherent plan. Evolution should be shown by the labels, if not otherwise."

The following statements were made with reference to the NE :—

" A very clear exposition of how money works."

" There was a clear development going back to the origins of currency."

" There was a definite sequence in each case . . . a general development."

" I like to compare different localities at one time."

" The NE is alive . . . the OE is monotonous . . . everything looks alike there."

" It had a leading idea . . . a comparison of old and new (. . . it was not a heterogeneous mass . . . not a haphazard collection.")

" I think that the idea of showing how money developed and how it is used and distributed is more interesting than just seeing cases full of various types of money."

" When I was told that I was to see an exhibition of money I saw in my mind rows and rows of coins, of all shapes and sizes . . . the first thing that struck me when I arrived at the exhibition [NE, second version] was the way it was set out—which seemed much more interesting as a whole than a row of coins."

The quest for completeness of impression was further expressed by demands for photographs showing the people who produced and used the exhibited objects. Visitors appreciated the photographs of the NE by saying that they " gave atmosphere ", " showed the human side ", " helped to anchor information ". One visitor wrote in her letter : " Large-scale photographs would help to fix the impression of the environment of the groups of objects."

Inclusion of Modern objects into a historical exhibition was specially appreciated.

The following references were made to the NE :—

" The exhibition was stimulating because it was touching on problems of modern production . . . of wealth."

"A modern comparison should always be brought in . . . in museums."
"The part of modern currency was leading up to the climax of the exhibition."
"'. . . connection with present day' is a merit of the NE."

The presentation of the modern specimens at the beginning of the exhibition was appreciated by some visitors.

"This arrangement directed one's mind . . . and made it easy to register matters."

"The part of the exhibition dealing with modern production interested me most—probably because it was modern——"

Drawings produced by the visitors immediately after the viewing of the exhibition and a month later indicated the differences in respect to the "wholeness" of memories formed under the impression of the OE and the NE relatively. Whereas the drawings referring to the OE reflected no reminiscences of any entity and of single objects indefinite shapes only, the sketches referring to the NE rendered the essential features of complete units and showed some concreteness in the pictures of a considerable number of single items.

(*d*) The visitors by their statements and their behaviour gave evidence on the one hand of the disadvantageous *effects on* their *minds* by arrangements lacking in coherence, and on the other hand of the benefits they derived from a meaningful presentation in the form of synthesis.

1. *Logical thought processes*, or lack of them :—

Deficiency in logical thought was shown in connection with the OE.

In their attempts to define the general meaning of the exhibition visitors made vague statements which through their generalizations became almost meaningless. ("I saw an exhibition of the *earliest* forms of money"; "I saw an exhibition of money of *all times and countries*"; "I saw a *variety* of currencies.")—Others seemed unable to articulate any summarizing definition and enumerated single items. ("I saw coins, beads . . . shells . . ."). Others again ventured to comment on the viewed exhibition by considering a single feature, which was of no greater importance than others, as the most characteristic one, and constructed ill-judgements. ("One realizes that the people who barter weapons are warriors."—In fact, weapon-like objects were only few among more numerous other objects, rings, tools, etc., in the case containing African currency, but one spear of conspicuous size, shown in the centre of the case, grafted itself upon people's minds while other items became obliterated. "There were different types of currency used mostly in Asiatic countries . . ."—In fact, Asiatic currency was only a part of the entire exhibition, but it was presented in the case at the entrance to the cubicle.)

Encouragement to logical thinking seemed evidenced by the NE.

In their definition of the exhibition people concentrated on the principle behind the arrangements. ("It is an account of the function of money in modern society"; "It shows the use of money in modern society and in primitive communities and gives a general impression

of how money developed . . ." ; a letter written one month after the visit to the NE contained the following passage : " I still retain a very clear idea of the principle behind it . . .")

2. *Stimulation of associations*, or lack of them :—

In connection with matters previously known by visitors, the OE had a disadvantageous effect (" I have seen a so-called currency exhibition. Now I really don't know what currency is "), whereas the NE seemed to act as a positive stimulus (" . . . what I already knew on the subject of coins, currency and barter, had been classified and sorted out in my mind " ; " It maps out things in one's mind ").

In respect of new associations the minds of visitors to the OE were blank whereas, again, the NE acted favourably. (" I was carried on by the interest of the exhibition . . . as by anything arousing associations " ; " The exhibition stimulated me to thinking of modern problems ; . . . probably each time I hold a pencil now, I shall think of the expense entailed in producing it . . . all the labour necessary and the wages " ; " I had always regarded it [money] as something impersonal and entirely missed the link with humanity " ; " The exhibition has made me understand a little the great importance and complications of economics ").

3. *Emotional Reactions :*

Visitors to the NE expressed their alertness at the end of their visit to the NE by asking questions, asking for literature, and by their general mood.

The adverse effects of the OE may be best illustrated by some quotations from statements made by people.

Decrease in alertness was complained of. (" I went in a spirit of interest to some cases, but it was damped " ; " It was difficult to concentrate.")

Irritation was expressed. (" I felt annoyed in this exhibition " ; " This exhibition made me mad . . . I feel exhausted . . . I should like to throttle the person who arranged this " ; " The first impression was that the subject was neither excessively boring nor intriguing ; I had few feelings. The actual banknotes interested me not at all ; I was unable to assess the value of the feathers, teeth, etc. That was most annoying.")

The confusing effect was another reason for complaint. (" It is bewildering . . . it hurts the eye " ; " It is bewildering . . . bewildering——" ; " I felt puzzled——" ; " The general public is bewildered by terms such as ' Hazienda tokens ' and ' Jettons ' which are used without explanation.")

The depressing (and implicitly " unbalancing ") effect was stated. (" It is musty . . . dull " ; " It is overpowering . . . I feel like running away " ; " The first impression I received of the exhibition was that there were hundreds of things to look at and that it would take days to go through all the exhibits, which made one feel rather oppressed.")

Two visitors expressed their mood by leaving the Old Exhibition.

* * * * *

The Experimental Exhibition " How Things Began " (Early Civilization) for children between the ages of six and fourteen was set up in two rooms of the University Museum of Archæology and Ethnology, Cambridge, in 1943. One hundred and eighteen children were tested ; they were boys and girls from different types of schools and homes. They viewed the exhibition in groups of five and their reactions were gathered from their answers to a written questionnaire given to them at the end of their visit, and/or in form of letters they wrote to the experimenter a few days after their visit (answering in the informal manner of a letter some or all questions of the questionnaire), from the drawings some of them produced, and finally from their oral interviews with the experimenter immediately after the visit to the exhibition or, in the case of the youngest children, in the course of the visit. Each group saw only one version, either the OE or the NE.

There were again two presentations of the subject in two separate rooms of the museum, each containing an almost equal number of exhibits (the Old Exhibition (OE) contained 68 specimens ; the New Exhibition (NE) 35 specimens and 29 pictorial exhibits, photographs and drawings.* The OE recapitulated on a small scale the " miscellaneous " presentation known from many museums, with prehistoric implements, African basketry and Roman pottery, following each other without much coherence or explanation. The NE was arranged on principles chosen by the experimenter and aimed at presenting the exhibits in a coherent sequence of evolution, with each single object well visible and all together combining to a pleasing pattern. One feature of the NE was a table covered with a sheet which the children themselves were asked to remove when they reached this part of the exhibition. On the table part of the objects was exhibited. Some of the captions of the NE were in form of questions. (" What would YOU do if you found yourself without shops in which to buy food, clothes . . . ? "—" Can you think of any other important first inventions ? ")

Before reaching the small rooms in which the experimental exhibitions were prepared, the children had to cross one large exhibition hall of the museum. In this hall and in the OE the general mood of children of all ages, especially of those over eight, was restlessness ; they would roam about unsteadily, look out of windows, ask abrupt and vague questions and before fully appreciating the answer move farther on. Some children in the OE seemed tired before the end of their visit. In the NE the alertness of the visitors seemed to increase in the course of their visit. Their interest was persistent and they focused their attention on one object after another (except for the 6/7-year-old ones). Their keenness grew when they touched things and especially when they were allowed to try on the exhibited grass skirt and the Eskimo suit. They were enthusiastic at the suggestion to try their hands at basketry and pottery.

Children of all ages unanimously preferred the visit to the museum

* The drawings to both experimental exhibitions were contributed by Mrs. E. Eastwick-Field, A.R.I.B.A.

in comparison with a lecture. (7/8-year-old girls : " The museum is better than school, because of the 'real things' " ; 10/11 : " In a museum you can see and touch things, at school you can only hear about them" ; 12/13 : " I like to examine things myself" ; " Museums pull our vague thoughts into something tangible.")

Comparing the effects of the OE with those of the NE on the minds of children the following may be tentatively suggested : in addition to the effects on the alertness which was described before, the incoherence and the scarcity of labelling in the OE tended to bewilder the children and to encourage illogical thought processes, whereas the clarity and coherence of the NE seemed to be conducive to logical thinking and, in result, to impart greater and better knowledge of things. When asked to define briefly what they had seen in the exhibition, children who had viewed the OE would say hesitatingly, " Eskimo clothes . . . arrows . . . things used by the Africans ". A homogeneous group of children after viewing the NE, containing comparable contents, would integrate single items to an image of some completeness and would say, " It was about how they made the first things and later . . ." ; " How civilization has grown ". " It was about how man developed and came to look after himself . . ."

The children expressed their discontent with the short captions in the OE which did not supply them with sufficient explanation (" Early Victorian weight " ; " Shell Money from New Zealand "). They definitely demanded clarity in the manner of coherent presentation of objects and short but simple labels. When asked what suggestions they would like to make for the arrangement of another exhibition, the senior children said : (" I should arrange things they used . . . fifty years ago and now . . . both for an Eskimo tribe and a tribe in a warm region "—" I should put the weapons that man uses to kill animals with, then the vessels they eat out of . . . after that the clothes they wear, both winter and summer . . . then pictures of their occupations . . . then ornaments . . .")

* * * * *

Some American Experiments bearing on the Presentation of Museum Specimens

Unknown to the present writer at the time of her own experiments referred to above, experimental work on a much larger scale has been undertaken in museums in the U.S.A., and may be studied from literature indicated on pp. 168, 181.

Of the problems studied in these experiments the following may be quoted, together with some supplementary remarks :

(*a*) The effect of the *number of presented specimens* on the behaviour of the spectator. Melton (1935) suggested that visitors stopped for a longer time in a gallery (increase of time by 50 per cent. on week-days and by 37 per cent. on Sundays) when the number of exhibited pictures increased from six to twelve. " The number of visitors who spent longer than five minutes in the gallery increased until eighteen or twenty-four paintings were exhibited, but did not increase or decrease thereafter . . ." " . . . the frequency with which visitors

spent longer than three minutes in examining paintings decreased as the number of paintings increased from eighteen to thirty-six . . ."

The observations made in Cambridge suggested the adverse effects on people's minds by an exaggerated number of objects, such as are commonly to be found in the exhibition halls of European museums. Further detailed experiments are, however, required to suggest possible optimum numbers for the presentation of specimens of a particular kind and under particular circumstances. The number of exhibits cannot be completely separated from other aspects, such as the character of both the exhibits (paintings, skeletons, minerals or otherwise) and the potential spectators (students or laymen, people attending a course or casual visitors), the accommodation of the exhibits, etc.

(*b*) The effect of the *Position of the Specimen* within the exhibition room on the behaviour of the spectator. Melton observed that visitors spent a shorter time before paintings which were above the average eye-level than before paintings which were at or below average eye-level. Robinson found that the situation of a painting in the centre of an exhibition or at its end, and the isolation of a single specimen from others, contributed to attracting spectators' attention to the particular exhibit.

The experiences acquired in Cambridge contributed to the opinion that the *position of exhibits* at average eye-level is definitely a stimulant to their being viewed in a manner benefiting the spectator. A reasonable isolation of one exhibit from another is desirable, but the spacing should be in keeping with other circumstances of the particular exhibition. In a students' gallery where each exhibit is likely to be studied singly, the spacing should afford opportunities for a complete isolation of the single object within the orbit of perception of the spectator confronting the exhibit; in an exhibition for the general public—in a " Feature Exhibition "—the hiatus between two objects should not be so stressed as to weaken the thread of ideas connecting the whole configuration, yet on the other hand there should be sufficient " living space " for each single object. In a students' collection it may be irrelevant whether a specimen is presented at the beginning, at the end or in the centre of a room ; in a " Feature Exhibition " the centre of the entire configuration carries in itself a meaning of certain importance and specimens allotted a central position ought to be qualified to hold it. If they are not, their presentation in the centre may suggest erroneous conclusions to the spectator. Such error was revealed in the experimental exhibition of currency at Cambridge where the fact that a specimen of African barter currency in the form of a large spear owing to its size occupied the centre of a case misled people to thinking that " the Africans were cruel people because they had barter currency in form of dangerous weapons " ; the numerous smaller objects, in the form of rings, tools, etc., which were shown in the same case but in a less conspicuous position than the spear, received a place of lesser appreciation in the minds of the spectators.

(*c*) *Homogeneous versus Heterogeneous Specimens*. Inquiries into the effects of either of these presentations on the behaviour of the museum visitor yielded contradictory evidence. An experiment suggested by

Mr. Fiske Kimball, the director of the Pennsylvania Museum, Philadelphia, conducted by H. H. F. Jayne and reported by Professor Robinson, consisted in presenting to visitors on one table an arrangement of homogeneous Chinese pottery and on another table an equal number of heterogeneous Chinese objects, pottery, sculpture, metalwork and textiles. A greater number of visitors stopped before the heterogeneous arrangement than before the homogeneous one (9·43 per cent. as compared with 5·45 per cent.). Melton compared the reactions of people to a composite arrangement of paintings and furniture with their attitudes to paintings only or to furniture only. In his judgement the composite arrangement had a "distractive" effect. 71 per cent. of the visitors stopped before the paintings, but only 65·2 per cent. before the composite arrangement of paintings and furniture. Furthermore, the time spent before homogeneous matter seemed in this case longer than the duration of attention held by the heterogeneous arrangement. The sum total of the average number of paintings and of furnishings examined when displayed in two disparate groups was greater than the total average of paintings and furnishings examined during the composite installation. (2·61 minutes before paintings only + 2·02 minutes before furnishings only = 4·63 minutes, to be compared with 3·71 minutes spent on the examination of the composite arrangement) Melton pleads for written guides to be offered to otherwise untutored visitors. He suggests that the mere contiguity of objects does not necessarily result in a clarity of meaning, even if a combination of different arts of one period (room) may possibly impart more meaning to spectators than a segregation of homogeneous articles. His further comment ought to be noted: " . . . even though no increase in present interest occurred (in the course of the examination of a composite arrangement as distinct from a homogeneous one) the visitors might remember better what they had seen because of the reinforcing effects of the context. In short, the presence of some meaning in the situation, a meaning which could not have been perceived so frequently or so completely without the display of the many arts of a period in contiguous space, should aid the visitors in the imaginal reproduction of their museum experiences at a later time."

The visitors to the experimental exhibitions at Cambridge definitely gave preference to configurations of *heterogeneous matter*, but again the heterogeneous character of specimens cannot be considered in complete isolation from other aspects of the presentation. *Completeness*, *coherence* and *clarity* of a presentation, if these qualities can be really separated from each other in all cases, are additional factors on which the effectiveness of a group of heterogeneous objects may depend. Without these qualities the group may bewilder the spectator. On the other hand it may be that a group of homogeneous objects will afford little or no chance at all for the qualities of clarity, completeness and coherence to come into effect in a manner appreciated by the layman. A combination of objects implying the story of an evolution or of a comparison—e.g., a series composed of a cotton flower, a picture showing the manufacture of yarn, and a loom with a sample of cloth on it—will go

far in explaining itself to anybody. The problems of combination of heterogeneous specimens, of their choice, of their explanation by photographs and charts, and/or by verbal information, require further experiment.

In order to approximate the results of the experimental exhibitions to general conclusions, their results may be compared with findings of psychologists with regard to human capacities of visual perception, of assimilation of information, and memory.

The main qualities of exhibitions which visitors at Cambridge both subjectively appreciated and by which they objectively benefited were the following : order of arrangement, clarity and coherence of both contents and form, a general background connecting the single exhibits, and presentation at eye-level. Absence of these characteristics, or presence of their opposites, called forth explicit condemnation as well as unconscious ill-effects. In support of this behaviour the following authoritative statements of psychologists may be quoted :

(1) Hamilton, W., *Lectures on Metaphysics and Logic*, ed. by Mansel, H. L., and Veitch, J., Edinburgh, 1859-60, vol. I, p. 254 : " If you throw a handful of marbles on the floor, you will find it difficult to view at once more than six, or seven at most, without confusion ; but if you group them in twos, or threes or fives, you can comprehend as many groups as you can units because the mind considers these groups only as units,—it views them as a ' wholeness '."

(2) Vernon, M. D., *The Experimental Study of Reading*, Cambridge, 1931, p. 104. " Goldscheider and Muller and others have shown that a greater number of objects can be perceived if they are grouped regularly, according to some familiar spatial relationship, such as that of symmetry, than if they are arranged irregularly."

(3) Vernon, M. D., *Visual Perception*, Cambridge, 1937, p. 65 : " . . . if the image covers a retinal area larger than the foveal area, these immediate impressions become unreliable ; peripheral visual impressions are inaccurate and distorted . . ."

(4) Vernon, Idem., p. 60 : " . . . it is very difficult to isolate one part or one aspect of the field. Only highly skilled observers can do this with even partial success ; others inevitably take into account the surrounding parts. . . . "

(5) Vernon, Idem., p. 57 : " The clearer this differentiation and the more definite the boundary lines between the parts of the stimulus, the clearer and easier the perception."

(6) Vernon, Idem., p. 63 (quoting an experiment of Brown, A. F., *American Journal of Psychology*, 1929 : " . . . if one desires to perceive the exact nature of the structure and the grouping of the parts, not merely their number, then heterogeneity of parts is desirable."

(7) Bartlett, F. C., *Remembering*, Cambridge, 1932, p. 83 : " In fact, response to a general scheme, form, order and arrangement of material seems to be dominant, both in initial reception and in subsequent remembering " ; p. 172 : " . . . without . . . general

setting or label . . . no material can either be assimilated or remembered."

(8) Koffka, W., *Principles of General Psychology*, London, 1930 : " Continuous, complete figures are more readily perceived and have more stability and persistence than discontinued ones."

The important problem of the change in appearance of single parts in accordance with the configuration of the pattern to which they belong was investigated by numerous psychologists, especially of the " Gestalt " (" Configuration ") School (consult Wertheimer, Köhler, Koffka) who consider that " configuration " or " pattern " is a primary quality of visual sensation, originating in the nervous system. In other words, that it is a human tendency to perceive a number of things or features in the shape of a pattern determined by an underlying " meaning " or " melody ". The " Gestalt " psychologists regard as criteria of " goodness " of a pattern " simplicity, symmetry, regularity, unification, continuity, inclusiveness, articulation ", and they assume that the meaning of a configuration is richer than, and different from the sum of its component single items.

These few references to large-scale psychological investigations seem to add weight to the views expressed by the visitors to experimental exhibitions.

Some suggestions for future experiments :

The " concrete " versus the " abstract " whole. In the past the most developed form of presentation of an entire unit was the Period Room —assumed to be the realistic simile of a human environment of a distant epoch or place. The natural history version of the historical period room was the Habitat Group showing animals in their natural surroundings. Sometimes the Period Room too would be of the size of a model, or a scene representing people of primitive material culture would be the subject of a model.

It would seem that there might exist still other possibilities for the representation of entire environments. No Folk Museum can be large enough to present in life size, or for that matter even with the aid of models, all aspects of human life in a particular area. Any attempt at revealing all essential features of a wider perspective than that of a single room or house, or workshop, will have to combine concrete objects with media presenting matters in a condensed even if less realistic way, by means of charts with pictorial statistics, in addition to photographs and captions. While the specimens proper are likely to provide the experience of immediate reality, the charts, graphs and photographs will help to build up a background of proper proportion, far beyond the scope of a single room. The proportion between specimens and informative pictorial material is again a matter to be studied empirically by controlled experiment.

Intellectual versus emotional approach. Whether specimens proper are to obtain a preponderant place in an arrangement or to rank equal or second to illustrative and informative materials may, in some cases

at least, and probably always in connection with objects of art, depend on the intention either to appeal to the visitor's intellect or to his emotions. In the case of emotional appeal great care must be taken in allotting to informative elements a place in which they will not damage the æsthetic effects. An example may help to explain the suggestion. The exhibition which led the present writer to this consideration contained pottery of different ages and areas. Each single vessel was of attractive appearance and several were contained in a case approachable from all sides ; within the case the single objects were presented on a stand resembling a pyramid, with each vessel posing on a step at a different height. To view a single vessel it was necessary to stand close to the case ; if viewed from a wider distance the unit of the objects within the case tended to hold the attention of the spectator more strongly than the single item. Nevertheless, the result seemed satisfactory in a museum for the general public, since there was opportunity to study single objects as well as to enjoy the rhythmic outlines of the units. In the latter case, however, a disturbance was felt : the pleasurable experience of the formal qualities of the vessels was, to some degree at least, baffled by the row of photographs, representing pottery, hung on the walls. The large, grey squares intruded into the spectator's orbit wherever he moved ; their contents were clearly visible only from short distance, but, more or less visible, they exerted a sobering effect and counteracted the experience of the fine proportions, the rhythm and colour of the specimens. On the other hand, these photographs added hardly anything to the information offered by the specimens themselves. They did not supplement the exhibition with further types of vessels desirable to afford to visitors a notion of pottery which in some respect would have approached completeness ; nor did these photographs help the visitor to form an idea of the environment in which the specimens had been created or used. It is by no means suggested that in the case of each exhibition a decision should be taken whether to appeal to people's intellect or their emotions, as if such definite separation of appeal and reaction were possible at all, but stress may vary in accordance with the subject-matter and with the purpose and the potential visitors of the display.

Another problem awaiting study is the scope for co-operation of the visitor in an environmental exhibition. Such co-operation may consist in handling implements, working on crafts, playing the music or dancing the dances of the particular environment ; and by assimilating information contained in pictorial charts, graphs and captions or guide books.

" What a museum really depends upon for its success and usefulness, is not its buildings, not its cases, not even its specimens, but its curator ! "—Sir William Flower, *Essays on Museums and Other Subjects connected with Natural History*, London, 1898, p. 12.

Training in Curatorship : No facilities exist in Europe for the training of curators which could be compared with the training for other vocations. The reason given for the absence of organized teaching is the limited demand for it, which, in its turn, is supposed to be connected with the small remuneration and the modest social status which can be expected by people preparing themselves for the profession of curatorship, except for those who may find employment in the few large museums. What the Museums Association in Britain has offered so far has been short-term courses and guidance in the form of bibliography and of examiners prepared to read and assess papers. During the years between 1934 and 1938 ten courses were held, each lasting one week, and the total attendance amounted to a hundred-and-odd students. A Diploma was the reward for people who attended a course and submitted an essay which was approved by the examiners. It is, however, highly questionable whether a few single lectures, and study based mainly on self-tuition, can amount to any full-fledged vocational preparation. Plans exist to extend the Diploma Courses in future. Some post-war activities were announced in the *Museums Journal*, London, January, 1946. In practice, in this field too, the National Museum of Wales has set an example by accepting trainees for a systematic practical training.

The system of "trainees" existed for many years in Germany, where the present writer served an apprenticeship at the Kaiser-Friedrich Museum in Berlin. A University Degree was required from applicants for such an apprenticeship, and the number of available places was limited. Training in curatorship combining practical work with theoretical instruction was offered to students at the Louvre in Paris.

Accounts of the facilities for training in curatorship in America are contained in L. Vail Coleman's *The Museum in America*, Washington, 1939, and in his *College and University Museums*, Washington, 1942. In the latter book, p. 64, he wrote : " University preparation for museum work is still in its beginnings, but it is developing steadily. New courses appear almost every year." Even in their present state of development the American courses are far superior to anything so far offered in Europe.

Before suggesting a syllabus for a course in curatorship it seems necessary to list the aspects of work a curator may have to undertake.

Obviously, it is beyond the capacities of a single individual to possess thorough knowledge of all aspects of work in a museum and to be :

(*a*) a chemist, familiar with the problems implicit in the maintenance of articles of a great variety of materials and suscep-

tible in different ways to injury caused by dampness and dryness of air, by dust and insects ;

(*b*) a student of an almost encyclopædic range of interests ;

(*c*) an efficient buyer ;

(*d*) an educationalist, conscious of aims of education of varying grades, in connection with children and adults, with students and amateurs.

(*e*) a psychologist, conversant with problems of human perception, memory, etc.

(*f*) an organizer, capable of dealing with people of different walks of life and acting as public relations officer.

In practice the curator in a museum of a variety of contents is knowledgeable on one subject and bound to neglect others, or he is that " Jack-of-all-trades " known under the non-committal term of a " connoisseur " who ultimately is equal to none of his tasks. In the few big museums the staff is usually composed of several specialists who divide the work among themselves rather than co-operate, and thus deprive the museum of potentialities implicit in its synthesis-character. The situation does not as a rule improve if professionals are replaced by honorary keepers selected because of some arbitrary incident rather than by their factual suitability for the work.*

The *syllabus* for a course, as the present writer sees it, should be planned for one year and the students should preferably be graduates of a university or hold a teacher's diploma. Persons possessing neither of these qualifications should not be definitely barred, but be admitted after an entrance examination in which their general adequacy could be tested.

The syllabus should contain the following subjects :

(1) The History of Civilization, illustrated by specimens of material culture and presented in relation to the facts of geology, geography and science ;

(2) General Outlines of the History of Arts and Crafts ;

(3) The History of the Museum and its present state in different countries ;

(4) Theory of Education ;

(5) Principles of Psychology, with special reference to visual and tactile perception. Exercises in practical work concerning

* The European curator, not unlike the European museum as a whole, is deeply steeped in traditions, and these are not encouraging to progress where curatorship is concerned. Among the spiritual ancestry of the curator are the amateur-collectors, the artists of moderate distinction and the courtiers. The first holders of the post of the " director general " of the public museum in Berlin were two gentlemen of the courtier type, Count Bruehl and Count Usedom. When the imperial collection at Vienna was opened to the public, the painter Rosa was appointed as curator and was succeeded by the engraver Mecheln. No doubt that these men made their contribution in their periods ; they deserve gratitude, but they must not stand in the path of new types of men—of fully fledged and socially minded experts. The evolution of the University School of Librarianship of the University of London from efforts undertaken by a private association of librarians suggests that a co-operation of Universities and associations of University Teachers in the drafting and the establishment of a Course in Curatorship is called for in the interest of a successful museum reconstruction.

the presentation of specimens and educative results effected by different ways of selecting and presenting objects ;

(6) Museum Architecture : some facts and principles ;

(7) Museum Crafts : the use of different materials for making screens ; lettering ; charts ; photography ;

(8) Museum Chemistry : methods of preservation of different materials (insect fighting, safeguards against dust and combustion) ;

(9) Museum Administration : questions of junior personnel ; their tasks ; finances.*

A training on the suggested lines should produce museum workers of a variety of talent ; men and women prepared to undertake the many-sided task of the maintenance of specimens ; research workers of almost any kind of study who would help to build up stores systematically, who would act as traveller-buyers and as members of expeditions ; educationalists in charge of the presentation of specimens for a variety of purposes, in connection with schools, adult education and research centres of differing kinds ; curators for local museums who would possess sufficient all-round information for their task to avoid grave blunders and to be able to apply the advice given to them by specialists. In addition to full-time workers, part-time experts would be required to be consulted by small museums or by organizers of temporary exhibitions. Teachers and youth leaders might attend some of the lectures of the Course in Curatorship.

Students should spend a minimum of three months as " apprentices " in a museum of acknowledged standards, and should do so either after the completion of their course or in two periods, the first being intermediate between two parts of the course, and preferably arranged during vacations.

* This syllabus is a reprint, slightly corrected, from my article " The Rôle of the Museum in Modern Society ", *The Advancement of Science*, London, September, 1944. By courtesy of the British Association.

A *Young People's Museum,* as the present writer sees it, would comprise the following rooms :

(1) Students' Gallery or " room of adventure ", where a variety of specimens would be presented, without much coherence but with clarity and simple explanatory labels.

(2) Library.

(3) Studio for artists.

(4) " Set-up " room, where the children may arrange specimens, provided by themselves and by the museum, on screens and in cases.

(5) Exhibition room, where the finished screens may be presented and be accessible to any child.

(6) Store room.

(7) Workshops where the children may plait, weave, carve, etc.

(8) Lecture and discussion room.

(9) Theatre, where plays would be acted and films shown.

Grounds for outdoor activities would be desirable.

In the case of limited premises the following rooms may be combined and serve a double or a threefold purpose : (1) and (6) ; (8) and (9), with perhaps (5) added.

The Young People's Museum may be supplied with specimens by established big museums in the vicinity or by special stores designated to offer such loans. An alternative would be to combine several museums of a region with a central store. With the exception of one storage room of limited measurements the premises of each single museum would be used for activities to some extent identical with the " creative leisure " activities of a youth club. The children should be encouraged to help in the running of the establishment.

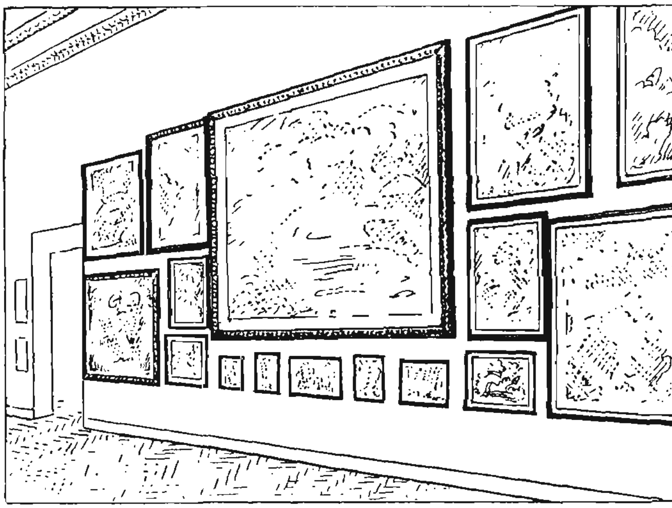


FIG. 9a.—If pictures are presented too near each other it is hardly possible to view a single painting without parts of neighbouring pictures intruding into the spectator's orbit. At the same time, one or the other of the presented pictures by its size or position in relation to others might acquire dominance which may, or may not, be warranted on artistic grounds. One large picture may appear as the centre piece of a cluster of pictures of smaller size, and together they may produce a self-contained group of ornamental appeal not necessarily in keeping with the values of each picture if considered separately.

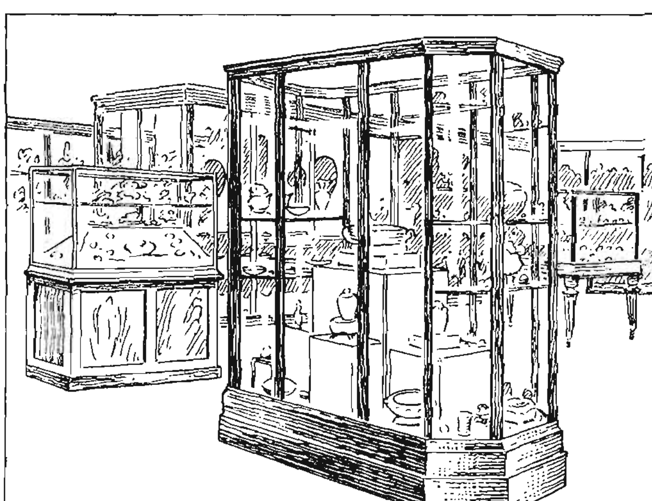


FIG. 9b.—In an exhibition hall comparable to the one shown above it is difficult for the visitor to find a place from which to view a single exhibit, or the contents of a single case, to the exclusion of a multitude of impressions derived from other cases and objects.

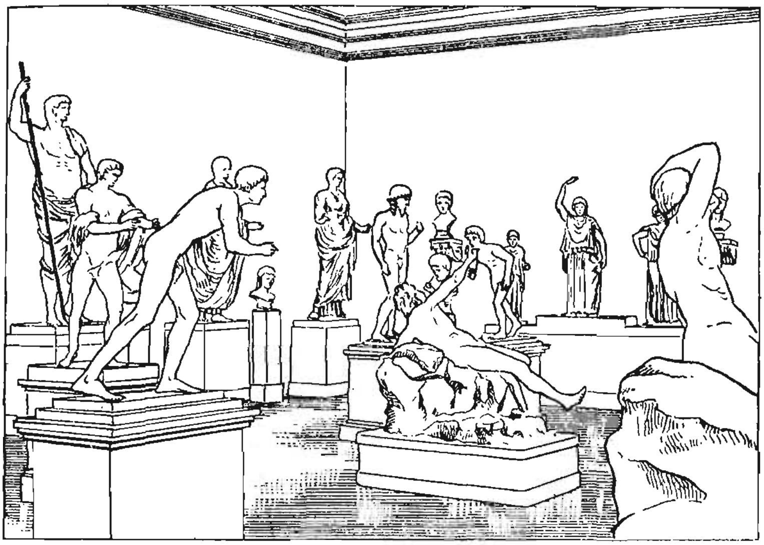
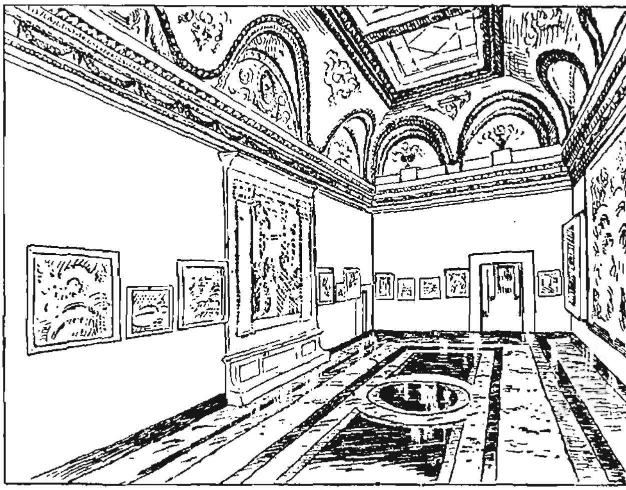
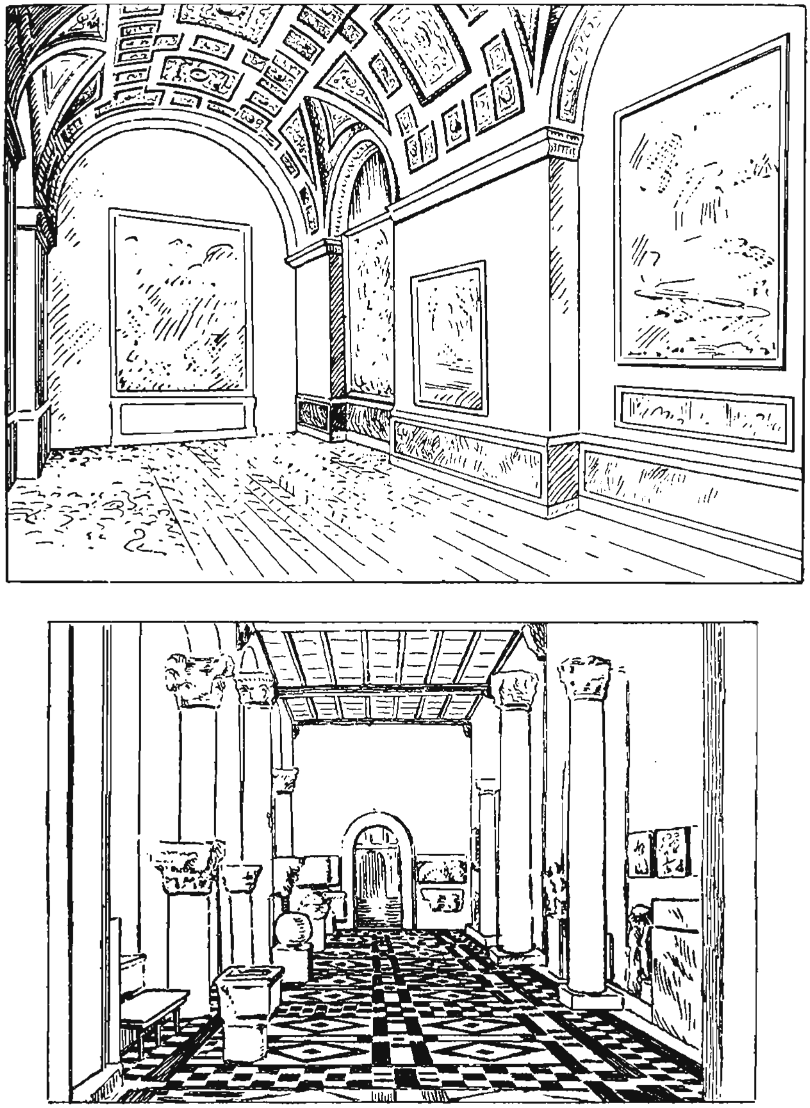


FIG. 9c.—If compared with many other exhibition halls the room shown above contains a limited number of exhibits, but still too many for a spectator to focus his attention on a single object. The student of classical archæology may find the room too crowded with figures, and the visitor lacking special knowledge of ancient culture and art, may complain of the absence of a principle which would unite single figures to groups or which would help the uninitiated to classify and to evaluate the exhibits.

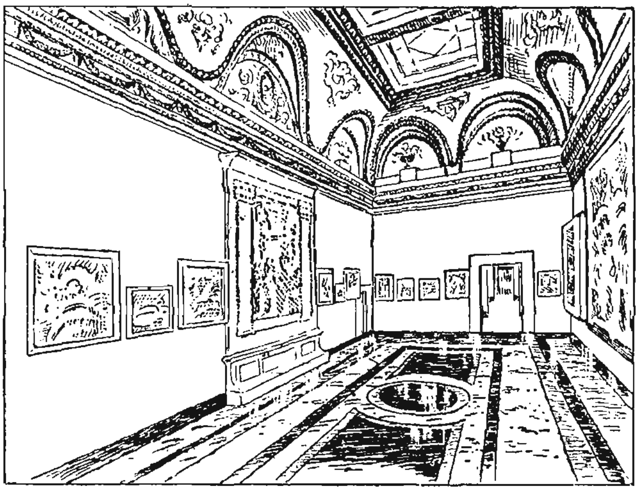
FIG. 9d.—An austere atmosphere in an exhibition hall may be preferable to an ornate one. The first to benefit from the simplicity of the setting is likely to be the student of the period or area illustrated by the exhibits, but would he not benefit even more if the specimens were presented in a series of small cubicles instead of in one large hall in which the visitor's eye is almost forcibly drawn into a deep perspective framing a great number of objects?



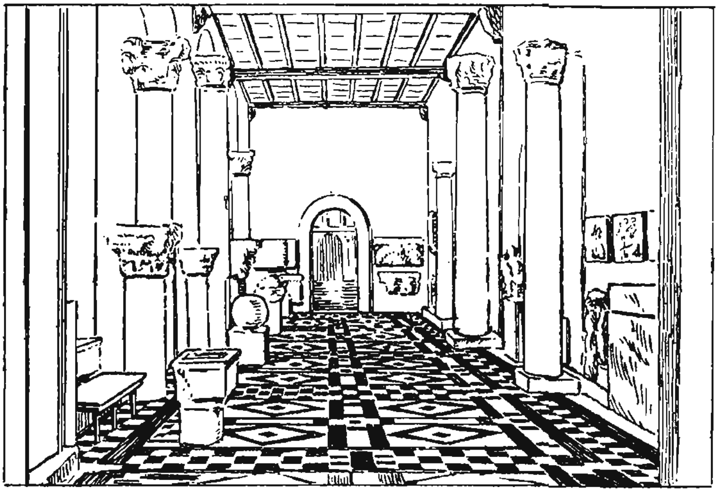
Figs. 9e and 9f.—Two examples of museum halls where the exhibits are overshadowed by a wealth of decoration on walls, ceilings and floors. In the above sketches the exhibits are shown in their original position but with less emphasis of tone than the background so as to give even greater predominance to the latter.



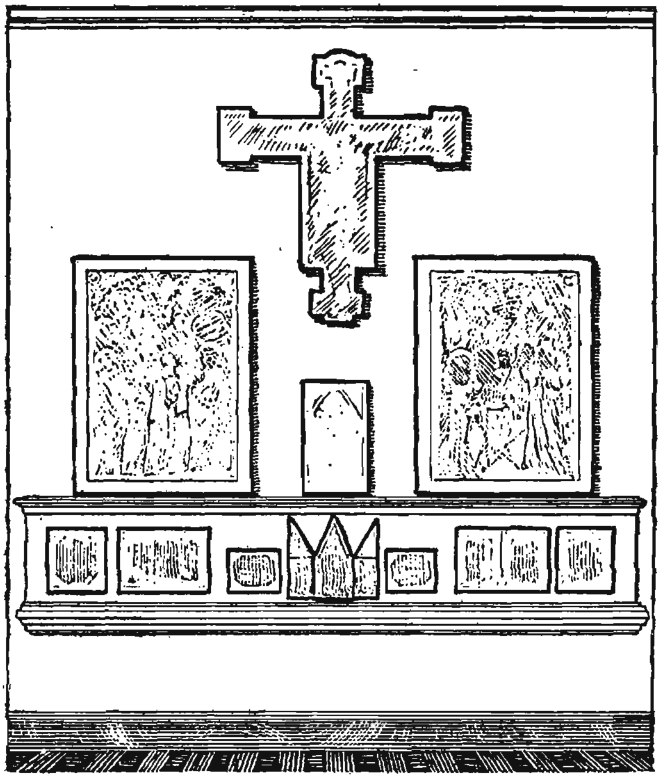
Figs. 9g and 9h.—Two further examples of ceiling and floor dominating in exhibition halls at the expense of the exhibits proper.

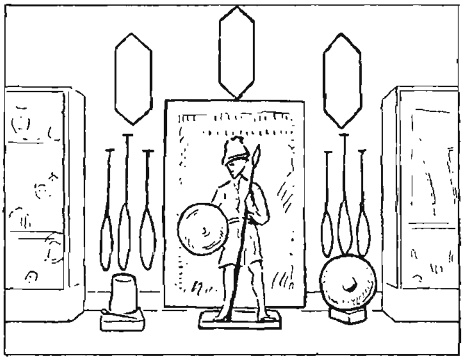


FIGS. 9e AND 9f.—Two examples of museum halls where the exhibits are overshadowed by a wealth of decoration on walls, ceilings and floors. In the above sketches the exhibits are shown in their original position but with less emphasis of tone than the background so as to give even greater predominance to the latter.

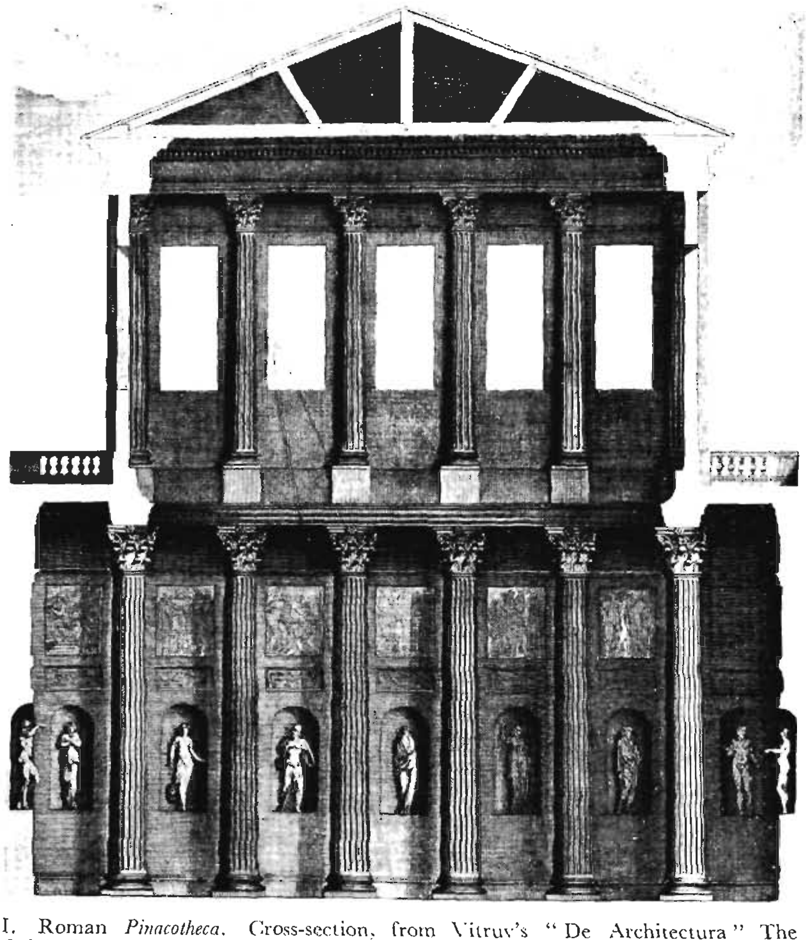


FIGS. 9g AND 9h.—Two further examples of ceiling and floor dominating in exhibition halls at the expense of the exhibits proper.

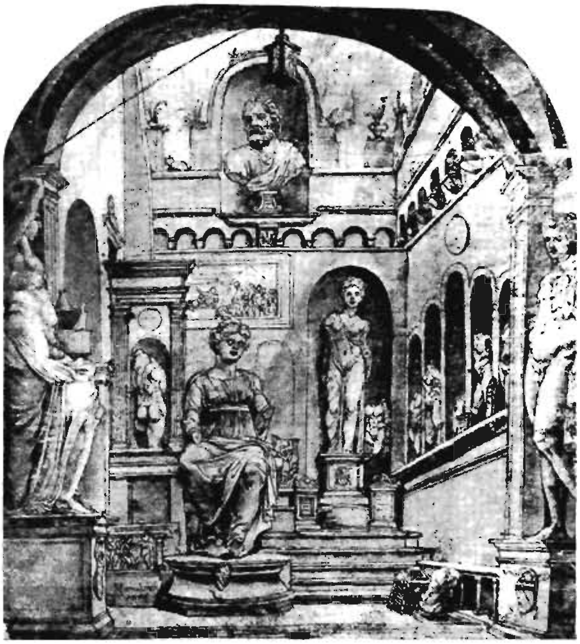




FIGS. 9i AND 9j.—Two examples of a presentation of a number of specimens in a group where the pattern might impose itself stronger on the visitor's mind than individual exhibits. Such patterns may be conducive to ill-judgement concerning the relations between objects, which in truth need not stand in any definite relation to each other (relation of sequence, of interdependence, of similarity or otherwise).



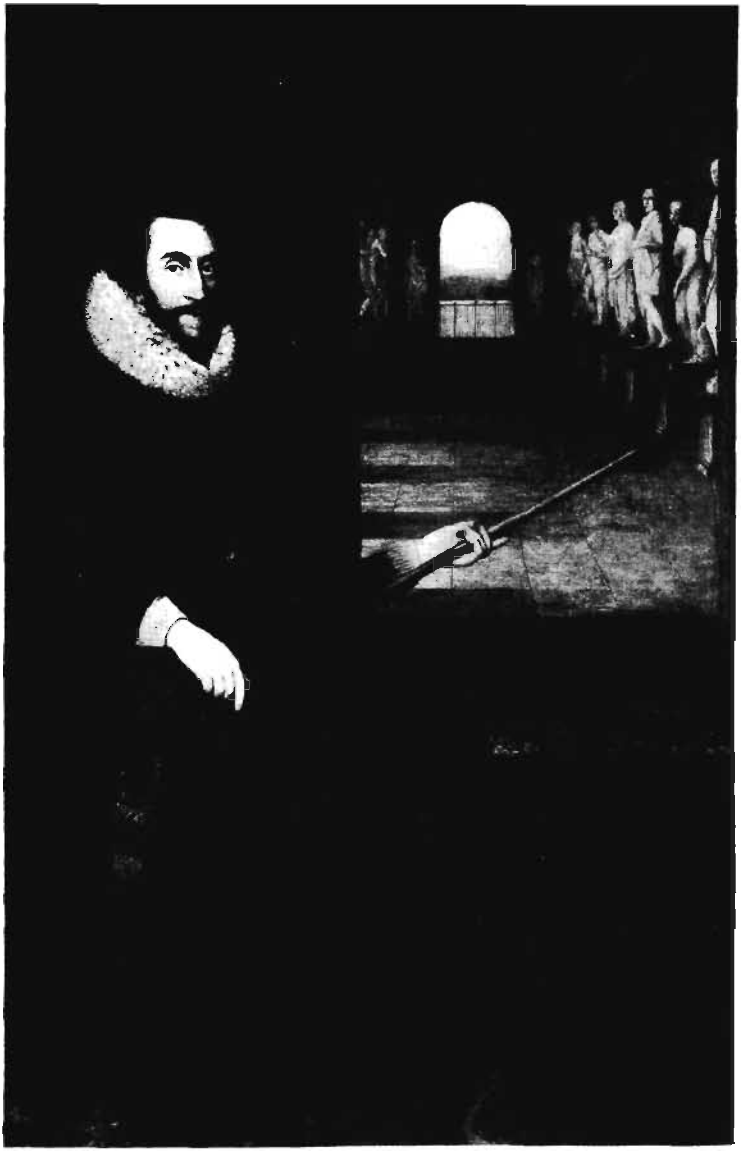
I. Roman *Pinacotheca.* Cross-section, from Vitruv's "De Architectura" The Original Latin manuscript was assumedly completed in the year 27 B.C. The illustration is taken from the French translation, by Perrault, Paris, 1684.



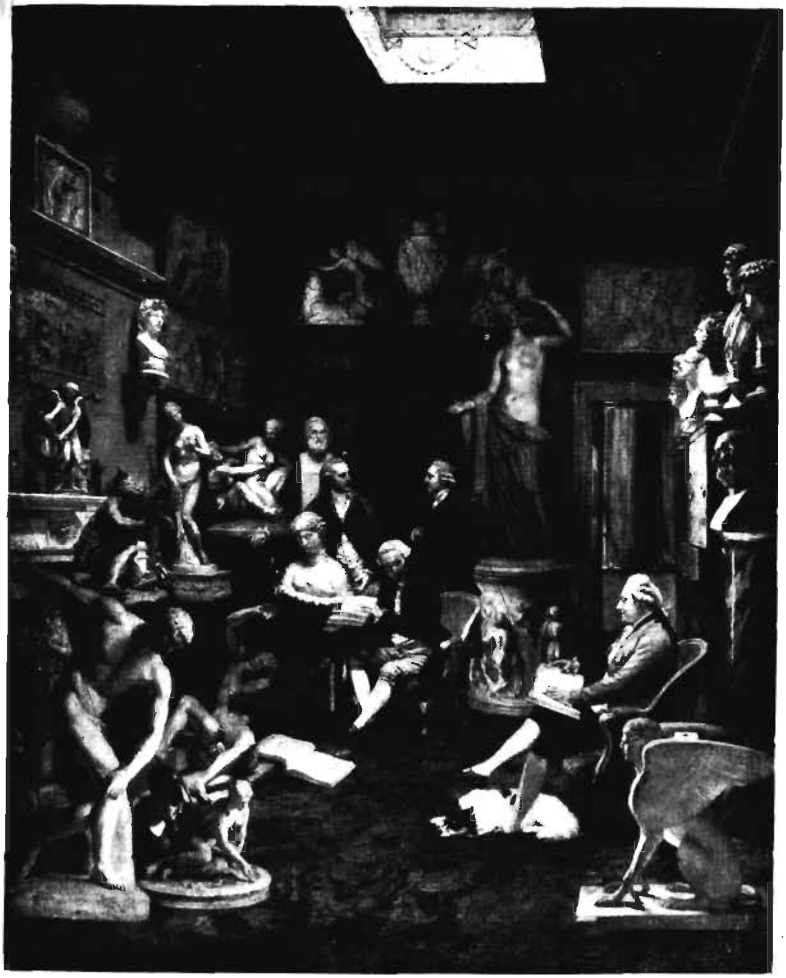
IIA. Collection of antiquities in the courtyard of the *Casa Sassi* in Rome. Engraving by Dirks van Coornhaert, after a drawing by Marten van Heemskerck (1553). (Kupferstichkabinet, Berlin.)

IIB. The garden of a collector of antiquities in Rome, on the site of ancient ruins. Engraving by Hieronymus Cock, of 1561, after a (lost) drawing by Marten van Heemskerck. (Kupferstichkabinet, Berlin).

III. The Italian Renaissance collector Andrea Odoni whose house and art collection was described by *The Anonimo* (Morelli) in his book " Notes on pictures of art in Italy made by an anonymous writer in the sixteenth century ", translated by P. Mussi, ed. by G. C. Williamson, London, 1903. Odoni's portrait, by Lorenzo Lotto, was recorded in his house in 1532, and is now at Hampton Court. It may have belonged to Charles I ; in 1653 it was bequeathed by the Dutch government to Charles II. (By courtesy of the Surveyor of the King's Pictures.)

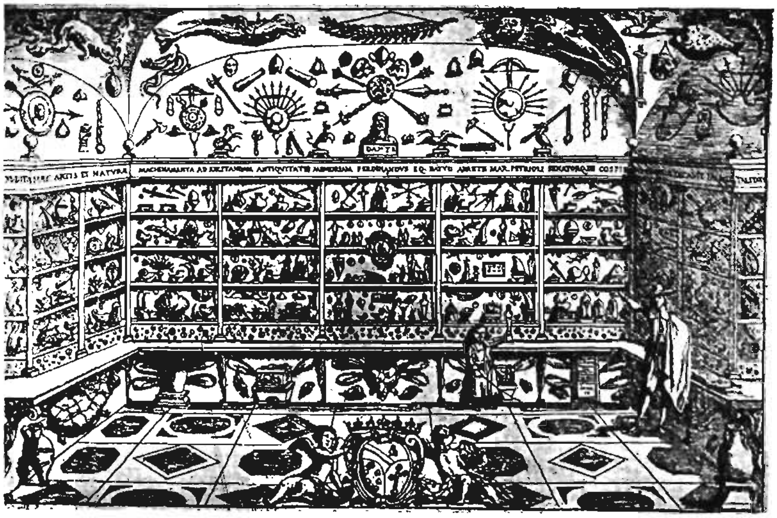


IV. *Thomas Howard, Earl of Arundel* (1586-1646), by P. v. Somer (or D. Mytens) and his sculpture gallery at Arundel House, London. (The house was taken down in 1678.) By courtesy of the Duke of Norfolk, Arundel Castle, and of Sir Robert Witt, collection of photographs, London.

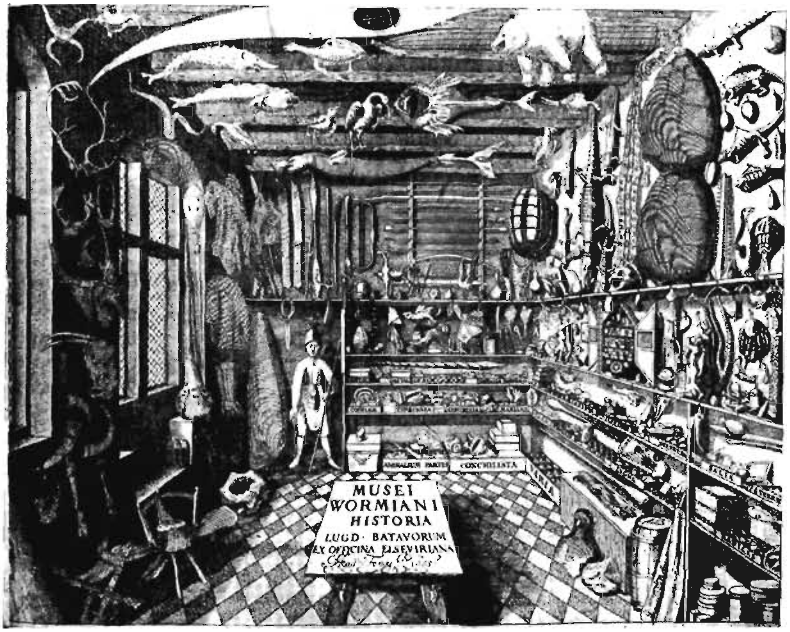


V. *Charles Towneley, Esq.* (with his dog at his feet) and his friends in the Towneley Gallery, Westminster, London. Painting by J. Zoffany. The room is filled with marbles which the collector bequeathed to the British Museum. Reproduced by permission of Burnley Corporation, and by courtesy of Sir Robert Witt, collection of photographs.

VI. *The museum of Ferrante Imperato* (1550-1630), of Naples, an arduous student of nature, founder of botanical gardens and of a famous collection. Frontispiece of his "Dell 'Historia Naturale Libri XXVIII", Naples, 1599.



VIIA. Museum Cospi, Bologna. Frontispiece of the Catalogue of the collection (1677).



VIIB. The museum of Olaf Worm, famous Danish student of natural history. Frontispiece of the catalogue of the collection (1655).

VIIIA. *Levin Vincent's Gazophylacium*, or "Theatrum Naturae". From the description, in Latin and French, of the collections, by R. de Hooge, Harlem, 1719.

VIIIB. *A single cabinet in Vincent's museum.* Birds' eggs and a great variety of dried animals occupy six drawers, whereas the remaining seven drawers are filled with *'ouvrages a la Phrygienne,'* with insects presented in the form of intricate ornaments.

IXa. *Musaeum Kircherianum*, domus naturae artisque theatrum, in Collegio Romano Societatis Jesu, Rome. From G. de Sepibus' catalogue of the museum, Rome, 1678.

IXb. *The 'Kunstkammer' of the princes of Gottorf.* Frontispiece of the catalogue of the collection, by Olearius, Gottorf, 1674.

X. The *Tribuna* in the Medici Gallery, Florence, by J. Zoffany, executed between the years 1770 and 1780, when the collection was owned by the princes of Lorraine. The catalogue of 1937 of the collections of Windsor Castle, to which the painting now belongs, gives a description of the persons represented in the painting. (" . . . In the right foreground Felton Harvey, Mr. Gordon Patch, Sir John Taylor, Sir Horace Mann and others stand or sit considering Titian's "Venus" which is supported by Bianchi, Keeper of the Gallery. On the left another group including Lord Cowper, Lord Dartmouth, Loraine Smith and Lord Mount Edgecumbe, surround a Raphael which is held by Zoffany. . . . .") (By courtesy of the Surveyor of the King's Pictures.)

XI. Archduke Leopold Wilhelm of Hapsburg in his Gallery in Brussels. Painting by D. Teniers, jun. (*Kunsthistorisches Museum*, Vienna, by courtesy of.)

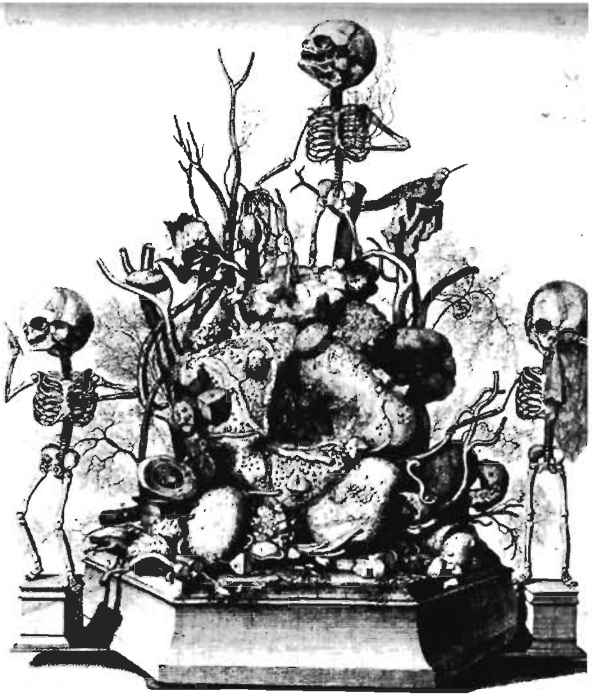
XIIA. Emperor Leopold I (1640-1705), visits the imperial library and chamber of rarities, in Vienna. Engraving from the German translation of E. Brown's "Travels, etc.", Nueremberg, 1711. (By courtesy of the *Kunsthistorisches Museum*, Vienna.)

XIIB. *The 'Kunstkammer' of the princes of Brandenburg,* Berlin. From L. Beger's "Numismatum Modernorum, sectio prima", Berlin, 1704.

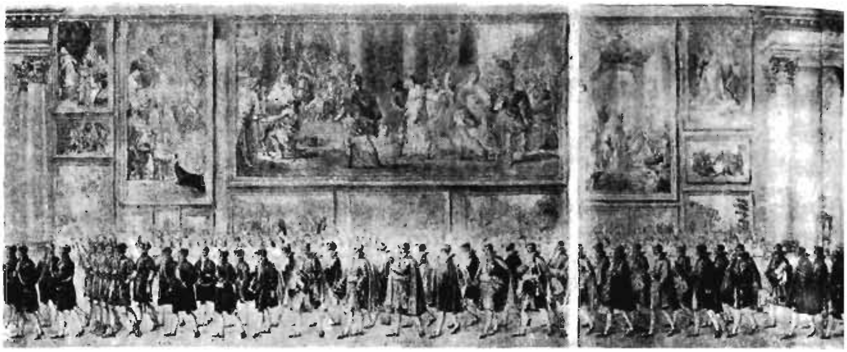
XIII. *Cardinal Mazarin* [1602-1661] *in his Gallery.* Engraving by R. Nanteuil and van Schuppen.

XIV. *Galleria Colonna*, Rome. Photo D. Anderson, 1930.

XVA. *The cabinet of Frederick Ruysch* (1638-1731), professor of anatomy and botany in Amsterdam. His first collection was sold, in 1716, for 30,000 guilders to Czar Peter the Great. Another collection of specimens of nature, founded subsequently by the indefatigable Ruysch, was sold after his death to the Polish King Jan Sobieski, and was later presented to the University of Wittenberg. Frontispiece of Ruysch's "Opera Omnia", Amsterdam, 1722-1737.

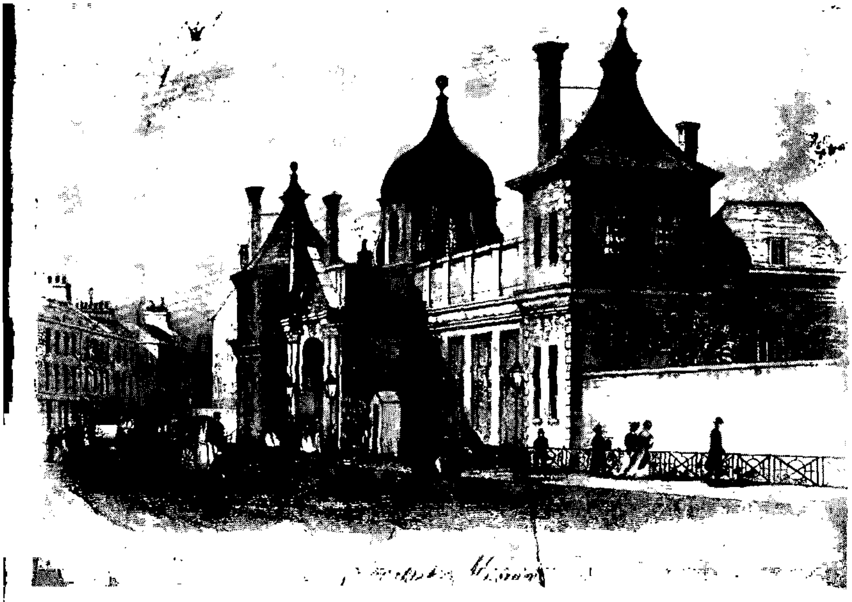


XVB. A group of Ruysch's anatomical preparations. From his *Thesaurus Animalium*, Amsterdam, 1735.

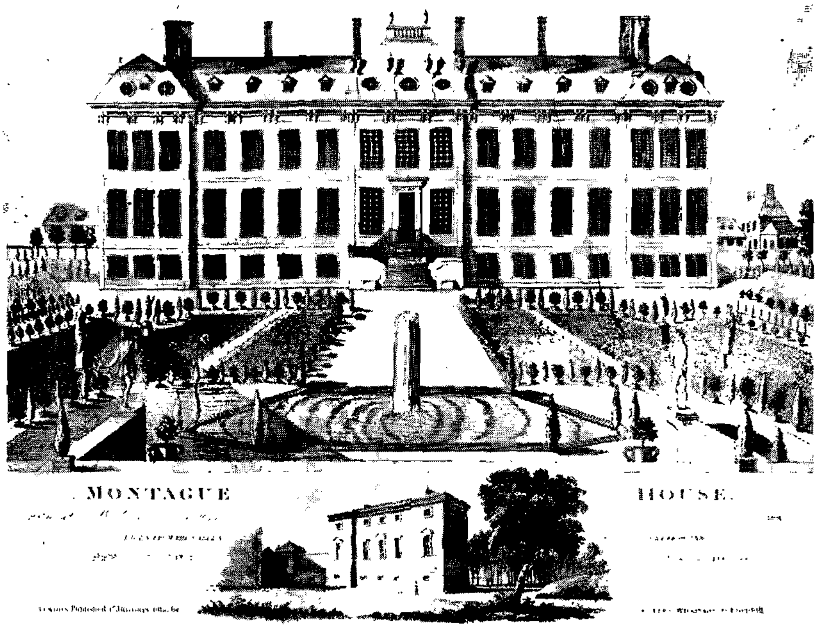


XVIA. *Louvre, Grande Gallerie.* The wedding procession of Napoleon Bonaparte and Marie Louise (2nd April, 1810). Water colour by Benjamin Zix (Museum at Sèvres by courtesy of).

XVIB. *Louvre, Salle des Antiques* (about 1810) Emperor Napoleon and his empress, Marie Louise, view the Laokoon. Pen drawing by Benjamin Zix (Louvre Museum by courtesy of).



XVIIA. Montague House, the building in which the British Museum was originally housed, seen from Great Russel Street.

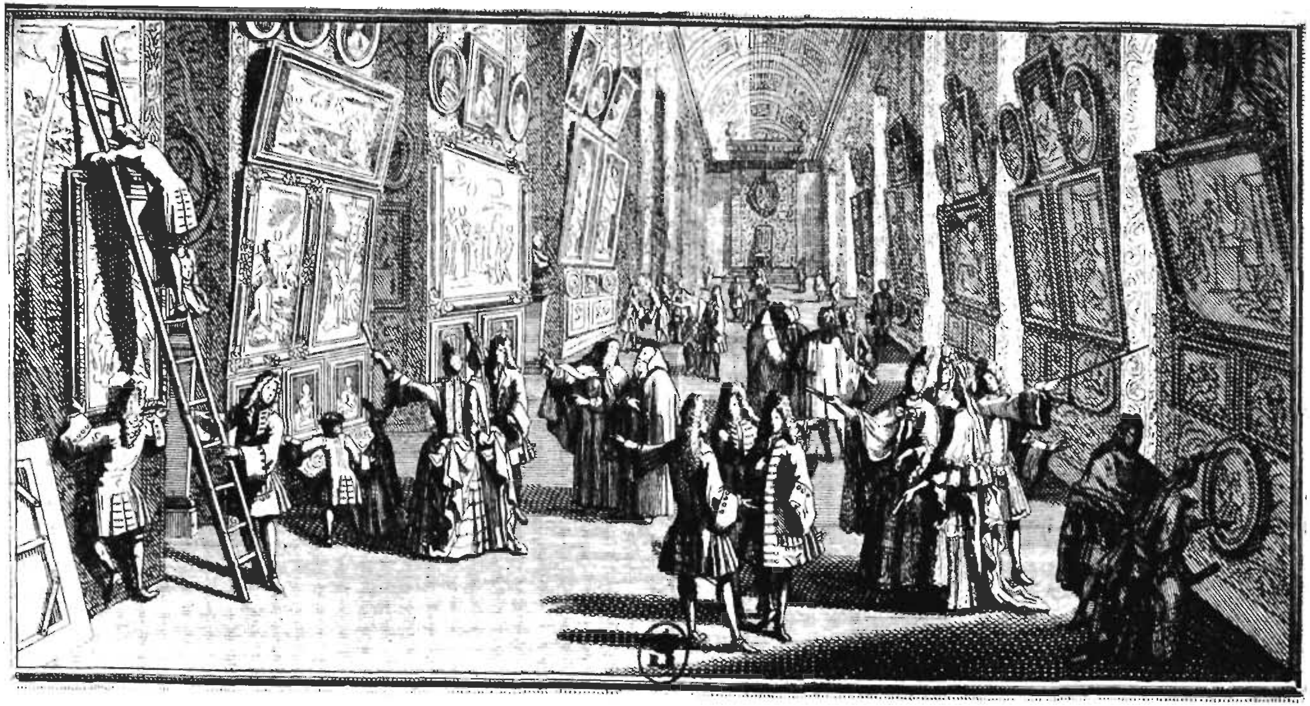


XVIIB. Montague House, in its original state, built about 1680, seen from the garden ; with the New Building, of 1804, in the Vignette. Publ. 1813 by R. Ackermann.

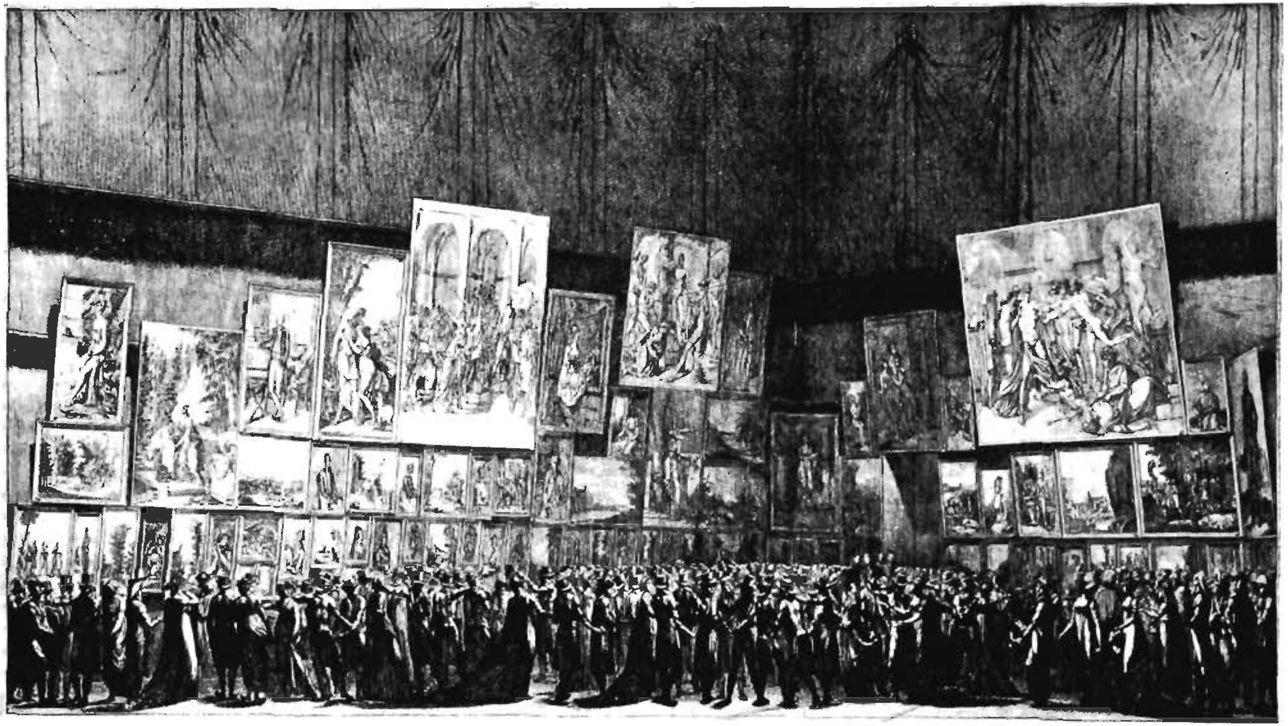
XVIIIA. The Hall and Staircase in Montague House. Drawing by Pugin and Rowlandson, aquatint by J. Bluck. Publ. 1808 by S. Ackermann.

XVIIIB. Country Visitors in the Egyptian Ante Room, New Building, British Museum (1862).

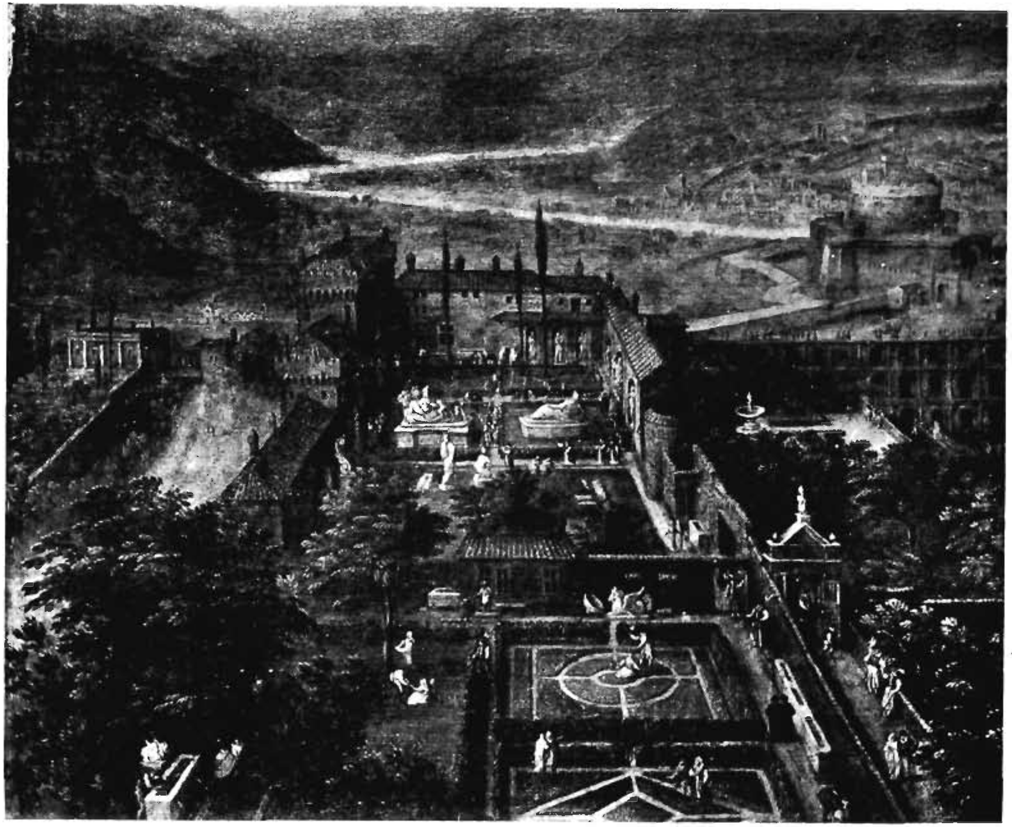
XIX. Exhibition of the Royal Academy, Somerset House, 1787. From a drawing by H. Ramberg. (By courtesy of the Royal Academy.)



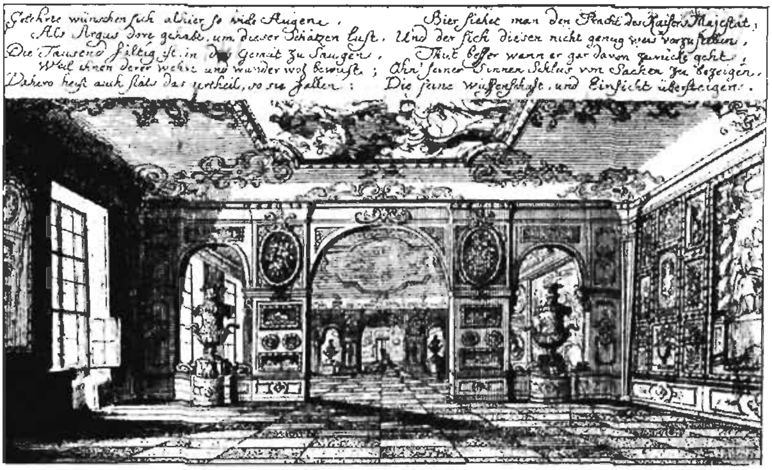
XX. *The Louvre, Paris.* Exhibition of works by members of the Royal Academy, in 1699. Anonymous engraving. (Bibliotheque Nationale, Paris, by courtesy of.)



XXI. *The Louvre, Paris.* An exhibition in the year VIII of the Republic (1800). Engraving after a painting by Monsaldy. (Bibliotheque Nationale, Paris, by courtesy of.)



XXII. The *Belvedere* in the Vatican, Rome. From a painting by Hendrik van Cleve, Netherland landscape painter, who visited Rome before the year 1551. The painting may be regarded as a panorama telescoping reality rather than as an accurate representation of detail.



XXIIIA. The Imperial collection in Vienna, at the time of its accommodation in the *Stallburg* in the early 18th century. The picture shows two cabinets and one hall. From Stampart's and Prenner's "Prodromus" (Introduction to a Catalogue of the imperial treasures of art), Vienna, 1735.

XXIIIB. *Prado* Museum, Madrid. The Central Gallery, from A. F. de los Rios' *Guia de Madrid,* Manual del Madrileño y del Forastero" 1876. (By courtesy of the Prado Museum.)

XXIV.- Exhibition of Art Treasures in Great Britain, Manchester, 1857. (By courtesy of the Public Library, Manchester).

BIBLIOGRAPHICAL INDEX

Abramov, S. A., 156
Ackermann, R., (publ.), 117
Adam, T. R., 168, 169
Addison, J., 38
Adler, B., 156
Æschines, 42
Agricola, G., 59, 67
Alberti, L. B., 51
Aldrovandi, U., 2, 43
Alembert, J. d', 67, 134
Alvarez de Sotomayor, 182
Ampelius, 67
Ampère, J. J., 111
Anonimo, The, 75, 76, 79, 263
Archæologia, 68
Arte en España, 106
Armenini, G. B., 75
Ashmole, B., 107
Athenæ Oxonienses, 111
Athenæus, 27

Bacmeister, J., 108
Bacon, F., 3, 7
Bacon, R., 57
Bahnson, K., 151
Bailey, N., 6
Balfour, Sir A., *see* Walker
Balfour, H., 150, 201
Bartlett, F. C., 202, 218, 249
Beard, C. A., and M. R., 150
Beger, L., 8, 272
Benjamin, W., 151
Bibliothèque Nationale, Paris, Catalogue of Exhibition, 1927, (Mazarin) 93
Bickerstaff, J., 68
Bisticci, V., 43
Blackburn, J., 184
Blondo, F., 41, 43
Bloomberg, M., 169, 218
Bocchi, M. F., 8, 111
Boettiger, C. A., 27, 50
Bonani, P, 68, 85
Bonnaffé, E., 7, 21, 42, 55, 111
Boodt, A. B., de, 29, 36
Borghini, R., 71, 78, 225
Boschini, M., 97, 106, 108
Bracciolini, P,, 41, 43
Braunholtz, H. J., 151
British Museum :
  Contents, 1762, 117
  Directions, Rules, 113, 116
  Parliamentary Papers, 1846, 151
Brown Goode, G., 143
Brown(e), E., 8, 36, 227, 272
Buchanan, W., 99–101, 107
Burckhardt, J., 36, 43, 50, 67, 78, 93, 104, 107
Busse, *see* Kuhn-Busse

Calvin, J., 36
Cambridge Ancient History, 21
Canton, S. (ed.), 22, 55, 78
Carducho, V., 55, 104
Cavalcaselle, *see* Crowe
Caylus, A. C. P., 49
Cellini, B., 43, 93, 107
Chacotin, S., 219
Chalmers, A., 111
Chamberlain, H., 116
Chambers, W and R., (pubs.), 117
Cicero, 15, 21, 44, 78, 106
Cinelli, M. G., *see* Bocchi
Coleman, L. Vail, 145, 168, 169, 252
Collin de Plancy, 33, 36, 39
Condorcet, M. J. A. N., 67
Conspectus . . Academiae Petropolitanae, 108
Conway, W. M., 156
Coomaraswamy, A. K., 210
Cowdry, R., 51
Cremonese, L. L., 68
Crowe J. A., 78, 106
Cultura Española, 107
Curtius, A., 27
Curtius, E., 78
Cust, L., 51, 106, 111

Dallaway, F. J., *see* Vertue
Dallenbach, 220

Dan, P., 27, 121
Dana, J. C., 168
Daukes, S. H., 183
Davillier, J. C., 28
Decharme, P., 7
Denis, J. F., 67
Dorsey, G. A., 217
Duncan, P. B., 111

Eberlein, K. K., 150
Edwards, E., 114, 115, 117
Egerton MS., 107
Eitelberger (ed.), *see* Hainhofer
Elyot, Sir T., 7
Enciclopedia Italiana, 7
Engerth, E., 128
Evelyn, J., 21, 28, 36, 55, 121, 228

Facius, B., 4, 5, 7, 52, 55
Fairfax, B., 92
Feldman, *see* Goldberg
Ferguson, W. S., 21
Festschrift Berlin, museums, 1880, 130
Fiorentino, V., *see* Bisticci
Fisher, G., *see* Ramsey
Flatman, T., 110
Floerke, H., 36, 93
Florez, M. (ed.), 36
Flower, Sir W., 252
Ford, R., 126
Frazer, J. G. (ed.), 21
Freyer, K., 151
Friedlaender, L., 27, 50, 67
Friedlaender, M., 72, 78
Frimmel, T., 7
Fuchs, E., 147
Furtwaengler, A., 111

Gachard, M., 92
Gassendi, R., 106
Gaye, G., 79
Gazette des Beaux Arts, 21, 55, 78, 111
Geddes, Sir P., 151
Gentleman's Magazine, 116, 232
Gersaint, E. F., 68
Gielly, L., 127
Giglioli, G. Q., 159
Giovio, P., 52
Goethe, J. W., 48
Goldberg Feldman, N., 169, 218
Goltz, H., 45
Goncourt, E., 132
Gonzalez, Davila, G., 86
Gower, Lord R., 107
Graesse, J. G. T., 92
Granberg, O., 107
Greenwood, T., 147
Gronau, G., 106
Gronkowski, C., *see* Kingsley, R.
Guiffrey, J., *see* Tuetey
Guillebert, of Metz, 53, 55
Gutierrez, A. Garcia, 150
Gutierrez de los Rios, G., 76, 79

Haase, O., 161
Haddon, A. C., 36
Haendler, G., 67
Hahlweg, W., 162
Hainhofer, P., 54
Hamilton, W., 249
Hamy, E. T., 139, 151
Harleian MS., 118
Harnack, A., 68
Harrison, H., 127
Harrison, J. E., 78, 93
Haverty, M., 127
Hayek, F. A., 11
Hefner-Alteneck, J. H., 92, 150
Hentzner, P., 117, 118
Herder, J. G., 38, 132, 135
Hervey, M. F. L., 7, 51, 106, 108
Herondas, 72, 78
Hoff, H., 117
Holanda, F. de, 75, 78
Holst, N., 69, 108, 132
Homer, 13, 20
Homo, L., 111
Hooge, R. de, 268
Howard Castle, Catalogue, 75
Howe, W., 168
Huelsen, C., 43
Humby, S. R., 189
Hume, M. A. S., 22

Ill. London News, 117
Imperato, F., 266
Isaacs, S., 219
Isidore of Seville, 2

Jacob-Friesen, K. H., 161
Jahrbuch d. Kunsth. Slgen, Vienna, 8, 78

James E. J., *see* Humby
Janet, P., 218
Jomard, E. F., 139, 151
Jones, F. Wood, 217
Julius, L., 7
Justi, C., 22, 36, 93, 106, 108

Keate, G., 140
Kenyon, F. G., 117, 132
Keppel, F. P., v, 169
Kingsley, R., 79
Kircher, *pater*, 61, 85
Klemm, S. F., 93
Koehler, J. D., 85
Koehler, W., 250
Koffka, W., 250
Kuhn-Busse, L., 130

Lacroix, P., 36, 37
Lafont de St.-Yenne, 119, 121
Lamb, W. R. M., 118
Lane-Fox, *see* Pitt-Rivers
Law, E., 17
Ledebuhr, L., 130
Legge, C. M., 156
Legran, B., 156
Lehman, H. C., 184
Leibnitz, G. G., 5, 8
Lemaitre, A., 22, 121
Lewin, K., 11
Lipinsky, A., 159
Lips, E., 162
Livingstone, Sir R., 202, 210–11, 219
Livius, 21
Loukomski, G., *see* Réau, L.
Louvre, Catalogues of Bonapartist War Trophies, 1807, 120 ; 1815, 28
Low, T. L., 168, 169
Lull, R., 2

MacDougall, W., 220
McNair, 201
Madrazo, J., 126, 127
Madrazo, P., 127
Major, D. B., 83, 87, 92, 93
Malinowski, B., 27, 42
Mannheim, K., 187, 189, 201
Marini, G., 43, 107
Markham, F. S., 181–3, 210, 219
Marolles, *abbé*, 24, 27, 55, 71
Martinez, J., 22, 36, 71, 78
Mason, C. W., 169
Masson, D., 117
Mehus, L., 107
Melton, A. W., 169, 218, 246, 248
Mercure Galant, 82
Mesonero, Romanos, R., 21
Metz, G. de, *see* Guillebert
Meursius, J., 62
Michaelis, A., 43, 51
Miers, Sir H., 149, 181, 184
Miller, N., 220
Misson, F. M., 226, 230
Monardes, N., 29
Monti, G., 123
Montpensier, de, 53
Moore, E. M., 169
Morales, C. de, 35
Morelli, *see Anonimo*
Morgan, L., 217
Moscardo, L., 68
Mueller, E. W., 36
Muentz, E., 36, 43
Muentz, M. E., 106, 121
Murphy, J., 36, 50, 78, 93
Murray, D., 39, 50, 69, 116, 142, 143
Murray, C. F., 55
Musées, 156, 170
Muséographie, 136, 170, 182
Museums and the Schools, 151, 183
Mustilli, D., 159

Neckam, A., 29
Neickel(ius), 4, 6, 64, 65, 68, 86, 87, 106, 139
Neurath, O., 183, 184
Nogara, B., 159
Nussbaum, F. L., 21, 36, 67

Occo, A., 45
Olearius, A., 61, 63, 65, 68, 86, 269
Oliver, W., 85, 86
Ovid, 76, 87, 114

Palermo, F., 106
Palomino, A., 50, 71
Parker, A. C., 169, 210
Parsons, T. H., 217
Parthey, G., 6
Pauly-Wissowa, 6, 8

Pausanias, 21, 36, 38, 42, 44, 56, 67, 74, 78, 91, 97, 106
Peacham, H., 50
Peusner, N., 67
Petrarca, 50
Pettigrew, T. T., 36
Pighius, S., 54
Philosophical Transactions, *see* Oliver
Pitt-Rivers, 151
Plinius, 2, 4, 7, 29, 38, 56, 74, 97, 106, 111
Poggio, *see* Bracciolini
Polemon, *periegeta*, 50
Pope, A., 105, 108
Porter, M. B., 169
Powell, L., 169
Pradel, A. du, 55
Prenner, A. J., *see* Stampart
Presker, H. G., 161
Preuss, H., 161
Primisser, A., 54
Proceedings of the Society of Antiquaries of Scotland, 146

Quichelberg, S., 93

Ramsey, G. Fisher, 151, 168, 169
Ray, J., 7, 223, 229, 231
Rea, P, M., 112
Read, H., 182, 211, 220
Read, Sir H., 140
Réau, L., 132
Reinach, S., 151
Reports :
(Final) of the Royal Commission on National Museums in Great Britain, 149, 181
Concerning (European) Museum reconstruction between the two wars, 181, 182
On University Development, London, 1944, 201
Rickard, T. A., 21
Rios, A. F. de, 283
Ris, C. de, 127
Robinson, E. S., 167, 169, 248
Roe, Sir T. *see* Hervey
Rothenstein, J., 182, 219
Rouse, W., 36
Ruysch, F., 275
Rymsdyk, J. and A. van, 2, 7

Saint Fond, B. F., 117
Sandby, W., 118
Sandrart, J., 47, 51
Sansovino, F., 22, 224
Saunier, C., 106, 121, 233, 234
Scamozzi, V., 4, 7, 83, 92,
Schliemann, H., 13, 20
Schlosser, J., 21, 38, 67
Schnitzler, J. H., 132
Schoene, H., 162
Schottmueller, F., 123
Schreiber, T., 6
Schulz, F. T., 161
Scott, G., 72, 78
Sepibus, G., 68, 269
Sergievski, U. V., 156
Sherrington, Sir C., 217
Sickler, F. K. L., 98, 106
Simond, L., 116
Sombart, 16, 21
Spon, J., 50
Spearman, C., 220
Stampart, F., 128, 283
Stebbing, S., 219
Stock, L., 130
Stokes, H., 50
Stukeley, Dr., 68
Sturgis, R., 146
Sudeley, Baron, 181
Suetonius, 38, 39
Swanton, E. W., 151
Symmonds, R., 100

Taylor, F. H., 150, 168, 170
Taylor, T. Sherwood, 112
Ternovetz, B. N., 156
Tietze, H., 128, 182
Thomson, A., 117
Thoresby, R., 47
Thorndike, E. L., 218
Thorndike, L., 35
Thouless, R. H., 218
Thucydides, 21
Tormo y Monzo, 42
Toynbee, J. M. C., 50
Tradescant, J., 66, 68
Tuetey, A., 121
Tzigara-Samurcas, 182

Uffenbach, J. F., 69
Uhlemann, W., 161

Valentiner, W. R., 182
Valentini, M. B., 2, 68, 116
Vallery-Radot, T., 93
Vasari, G., 5, 36, 43, 71, 111
Velasco, *see* Palomino
Venturi, A., 67
Vernon, M. D., 220, 249
Vertue, G., 101, 106, 107
Viardot, L., 128, 131, 132, 135
Villena, A. P. M. de, 68, 93
Vitruvius, 7, 88, 93, 261
Voelkel, L., 106
Volkmann, D. J. J., 76, 79, 81, 92, 123, 125

Waagen, G. F., 107, 130
Waetzold, W., 130
Walker, J., 68
Walpole, H., 51, 106, 118
Weigold, H., 161
Weiner, P. P., 132
Weixlgaertner, A., 21, 36
Weld, C. R., 67
Wellington, E. K. G., 107
Wells, H. G., 219
Wendeborn, S. F. A., 113, 116
Wertheimer, M., 250
Weston, R., 169
Whitehead, A. N., v, 189, 199, 202
Wildenstein, G. (ed.), *see Musées*
Wilamowitz-Moellendorf, 6
Wilkinson, R. (pub.), 117
Williamson, G. C. (ed.), *see Anonimo*
Winckelmann, J., 125
Winser, B., 218
Wittlin, A. S., 254
World Exhibition, Paris, 1937, Catalogue, 162
Worm, O., 61, 68, 267
Wulff, O., 182
Wymetal, W., 128

Young, R. F., 68

Zabaleta, J., de, 28
Zedler, J. H., 6, 36
Zeiller, M., 4, 7

COLLECTORS INDEX

(Compare General Index, *Collections.*)

Agrippa, 109
Aldrovandi, U., 2, 60, 84, 93
Alexander, of Russia, 99
Aragon, Alfonso, Prince of, 4, 5, 54, 55
Arundel, T. H., Earl of, 7, 47, 88, 96, 106, 264

Balfour, Sir A. and Sir J., 66, 117
Berry, de, *see* Burgundy.
Barberini, 99
Blundell, H., 99, 107
Bonaparte, Napoleon and his family, 26–28, 45, 89, 99–101, 106, 107, 120–2, 125, 233, 234, 276
Borghese, 99
Bracciolini, P., 41
Brandenburg, Princes of, 6, 8, 88, 105, 128, 130, 272
Bridgewater, Duke of, 103
Bromelius, O., 4
Buckingham, Duke of, 92, 95, 96, 104, 106
Burgundy, Dukes of, 5, 16, 18, 29, 53, 58, 103, 127

Calceolari, 61, 68, 87
Canazza, Conte, 224
Carlisle, Baron, 103
Catherine the Great, of Russia, 100, 130, 131, 132
Caylus, Count, 49
Cellini, B., 43
Charles I, of England, 90, 94, 100, 101, 104, 107, 117, 118
Christine, of Sweden, 100, 102, 107
Chrysogonus, 15
Cicero, 15
Ciriaco, 104
Colonna, Princes of, 89, 99, 274
Cospi, 60, 68, 84, 87, 93, 267
Crescentius, N., 41
Cusanus, 231

Denmark, King of, 85, 139
Doria, Prince of, 21
Duchie, J., 53
Dutuit, 76, 77, 79

Elgin, Earl of, 48
Este, Prince of, 5, 95, 106

Forza, O., 41
Francis I, of France, 24, 45, 82, 97
Fures y Muñoz, G., 94

Ghiberti, L., 41
Giovio, P., 52
Giustianini, 81
Goncourt, E., 132
Gonzaga, Princes of, 76, 95, 102
Gottorf, Prince of, 61, 65, 68, 105, 110, 269
Gower, Baron, 103
Grimani, Cardinal, 104
Grosvenor, Earl of, 107
Gustavus Adolphus, of Sweden, 102

Hapsburg, Princes of
- Imperial Collections, Vienna, 16, 21, 22, 36, 89, 227
- Charles, V, Emperor, 29, 71, 78, 81, 92, 95, 102
- Ferdinand II, Emperor, 127
- Leopold I, Emperor, 272
- Maximilian I, Emperor, 17, 30
- Philip II, of Spain, 33–35, 45, 76, 78, 81, 86, 87, 96, 101, 102, 105, 106
- Philip IV, of Spain, 19, 25, 27, 47, 90, 94, 96, 97, 100, 101, 104, 108
- Rudolph II, Emperor, 29, 58, 59, 76, 82, 83, 102
- Ferdinand, Archduke, of Castle Ambras, 36, 52–54, 226
- Leopold Wilhelm, Archduke, Brussels, 81, 82, 100, 271

Hapsburg, Princes of (*contd.*)
Fernando (Ferdinand), Infante, 104, 107
Margaret, Governess of the Netherlands, 52
Henry VIII, of England, 117, 118
Hessen, Princes of, 99

Imperato, F., 266

Jabach, banker, 94, 100, 118, 119
Julius Cæsar, 109

Kemp, J., 47
Kircher, *pater*, 61, 68, 85, 95, 269

Laborde de Mereville, 102, 103
Lennox, C., 110
Lever, Sir Ashton, 66
Lombardi, 41
Londonderry, Marquess of, 107
Louis XIV, of France, 82, 114, 118, 119, 233, 280

Mantegna, A., 41
Mantua, Dukes of, 118, *see* Gonzaga
Marolles, *abbé*, 71, 119
Mazarin, Cardinal, 22, 45, 51, 88, 90, 93, 100, 119, 273
Mead, Dr. R., 66, 68, 105
Medici, collections, 5, 7, 41, 81, 88, 95, 96, 111, 122, 228–30, 270
Catherine de, 120
Cosimo de, 3, 5, 8, 43, 95
Lorenzo de, 109, 110, 111
Mercati, 84
Modena, Duke of, 7, 60, 65, 105
Montaigne, 65
Moscardi (Muscardo), 61, 68, 231
Mummius, General, 15

Niccoli, N., 41

Odoni, A., 263
Orleans :
Louis, 102
Philippe, 102, 107

Palatina Galleria (Rome), 87
Palatine, Prince (Heidelberg), 7
Paludanus, Dr., 61, 105
Peiresc, Fabri de, 95, 106
Pembroke, Earl of, 51
Peter, the Great, of Russia, 105, 108, 111, 130, 132
Pitt-Rivers, 139, 144
Poggio, B., *see* Bracciolini
Pollio, A., 109
Portland, Duke of, 55
Ptolemy Philadelphus, of Alexandria, 23

Reider, *Herr von*, 81
Richelieu, Cardinal, 51, 53, 55
Richmond, Duke of, *see* Lennox
Robertet, F., 75, 78
Ruysch, Dr., 89, 105, 111, 275

Sala, M., 231
Saltero, *don*, 66, 68, 69
Sassi, 259
Saxony, elector of, 61, 84, 105, 129
Scaurus, 15
Schleswig-Holstein, Prince of, *see* Gottorf
Seba, A., 105
Settala, 61
Sibbald, Sir Robert, 117
Sloane, Sir Hans, 66, 84, 92, 105, 113, 115, 116, 117, 232
Squarcione, F., 41
Stafford, Marquess, *see* Gower, Baron

Townley, C., 47, 88, 110, 115, 265
Tradescant, J., 66, 68, 110

Valentini, M. B., 2, 63, 68, 85
Vecchietti, 225
Vendramin, A., 83
Verres, 15, 70, 78, 97
Vincent, L., 268

Wales, Henry, Prince of, 4
Walpole, Sir Robert, 51
Wellington, Duke of, 100, 107
Wolsey, Cardinal, 45, *see* Gen. Index Hampton Court
Worm, O., 61, 68, 84, 85, 93, 267

GENERAL INDEX

(Compare Bibliographical Index, Collectors Index)

Academy, 60, 63, 68, 121 ; of Art, 67, 118, 119, 121, 279
Aficionado, the, 19, 53, 94
Ambras, castle in Tirol, 7, 22, 52–4, 226
American Association of Museums, 168, 169
Analysis, *see* MUSEUMS, Presentation of specimens
Anthropology and museums, 150, 201 (compare MUSEUMS, Types of, Ethnological Museums
Anticamera, term, 5
Antiquaries, Society of, in England, 60, 68, 101, 102 ; in Scotland, 146
Architecture, *see* MUSEUMS
Art, museums, *see* MUSEUMS, Types of ; the rôle of art, 70–79, 93
Art, Royal Society of, London, 1873. Standing commission on Museums, 149
Arts and Crafts, museums of, see MUSEUMS, Types of, compare Catharsis
Arts Council in Great Britain, 211
Arundel marbles, *see* Marbles
Autos Sacramentales (Spain), 90

Cabinet, term, 4
Carnegie Corporation, President's Report (on museums), 1937, 169
Catharsis (compare Art), 75
Centre of Training in Basic Facts, the museum as a, 196 *sq*. (compare MUSEUMS and Education)
Churches, collections in, *see* Collections
Cicerone, the, in the ancient world, 44
Cimeliarchium, term, 5, 228
Circulation sevices, *see* Loan services
Civic museums, project for 141, 151
Closet, term, 4
Coins, collections of, 45, 50
Colbert, French minister of state, 82, 118, 119, 121
Collections :
- in churches, 22, 33, 35, 36, 38, 51, 57, 58, 91, 92, 116
- in France, seventeenth and eighteenth centuries, 55
- in ancient Greece : temples, 14, 31, 32, 37, 39, 40, 72–5, 78, 83, 91, 97, 109 ; open air collections, 39, 42, 67, 70, 74, 75
- in Italy, *Renaissance* period, 21, 36, 40–5, 59, 78, 79, 104, 107, 262, 263
- In ancient Rome, 7, 14, 15, 24, 38, 40, 43, 44, 50, 56, 88, 109, 111
- of scientists, 63, 116

Conditorium, term, 5
Conquest of works of art (in times of war), 97–101, 106, 233, 234
Cosmography, 58, 67
Curatorship, training for, 200, 252–4
Curieux, the, 57, 65
Curio, the 58

Dactylotheca, term, 109
Democracy and museums, 166, 193, 222 (compare MUSEUMS and Education, Adult Education)
Dilettanti, Society of, 48, 51, 118

EDUCATION and Museums, *see* MUSEUMS and Education
Education, visual, 183
Educationalists (Dewey - Keller - Montessori - Read - Sanderson - Stebbing), 219, 220
Elgin marbles, *see* Marbles
Ethnological museums, *see* MUSEUMS, Types of

Experimental work on museums, *see* MUSEUMS', experimental work on

Fascist Italy, museums in, 152, 156–9
  Museo dell' Impero Romano, 156, 157, 159 ; Museo Mussolini, 156–9 ; Pinacotheca Vaticana, 158, 159
Field Study Centres, 211
Fontainebleau, royal residence at, 27, 28, 45, 118
France, collections in the seventeenth and eighteenth centuries, *see*, COLLECTIONS

Gallery, the term, 3, 4, 7, 88
" General public ", museums for the, 169, 181, 184, 195, 201–11 ; compare MUSEUMS and Education, Adult Education
Greece (ancient), collections in, *see* COLLECTIONS
Green Vaults, Dresden, 18, 84, 92
Guardaropa, term, 5, 80, 95

Habitat Groups, *see* MUSEUMS, Presentation
Hampton Court, 24, 27, 45, 117
Historical museums, *see* MUSEUMS, Types of

International—
  Council of Museums (I. C. O. M.), xv, *see* MUSEUMS
  Foundation for Visual Education, *see* EDUCATION
  Museum (Geneva), plans for, *see* Mundaneum
  Museums Office (Office International des Musées), *see* MUSEUMS
  Picture Language, *see* EDUCATION, visual
Italy, collections of the *Renaissance* period, *see* COLLECTIONS (compare Fascist Italy)

Johnson, Dr., 5, 75
Jones, Inigo, 4, 47

Keppel, Dr. F. K., *see* Carnegie Corporation
Kimball, F., see MUSEUMS, experimental work on, U.S.A.

League of Nations, *see* MUSEUMS, International Museums Office
Leyden, Anatomy Hall, 61, 62, 65, 86, 87
Liberal Europe, museums of, 152, 170–84, 187
Loan services, *see* MUSEUMS
Louvre, the museum in the, *see* MUSEUMS, France

Manchester, Exhibition of Art Treasures, 284
Marbles ; Arundel, 95 ; Elgin, 96
Mundaneum, 183
Muses, 1, 3, 7
Museum, the term, 1–3, 7
MUSEUMS :
  Alexandria, the Museum in, (Hellenistic period), 1, 2 6,
  Architecture : private collections in past centuries, 3, 4, 88 ; museums, 116, 117, 129, 133, 135, 145, 146, 148, 163, 164, 168, 182, 183, 192, 209–11
  Association, Great Britian, 150 183, 252
  Attendance, 145, 163, 164, 177
  Education, *see* MUSEUMS and Education
  Experimental Work, *see* MUSEUMS, Experimental work on
  Guide lectures, *see* Reform
  International Council of Museums (I.C.O.M.), xv
  International Museums Office, 170
  Loan services, 145, 155, 168, 183, 192, 212
  Pioneer museum, in Europe, 172–6
  Presentation of specimens, methods of, (compare Experimental work)
    " Analysis and Synthesis ", 142-4, 154, 161, 163, 174–6, 183, 212, 236, 241
    The " functional " manner of display, 172, 173

MUSEUMS (*contd.*)—
The " goodness " of a presentation, 235, 280–4, (compare Psychology and Museums)
Habitat Groups, 163, 207, 250
Period Rooms, 143, 144, 163, 207, 210, 250
Reform, 136 *sq* ; some trends in the nineteenth century : specialization of contents, 142 ; the spacing of specimens, 172, 235, (compare Presentation of specimens) ; guide lectures, 181, 182
Programmes for reform, post-war, 1918, 170–172
Reports concerning the reconstruction of (European) museums, 149, 150 181, 182, (compare Reform, Programmes for)

MUSEUMS and *Education* :
Adult education, in the U.S.A., 164–7 ; suggestions for, 196-211 ; The " *general public* " : the behaviour of visitors (as observed by American psychologists), 167, 169, 246, 248 ; effects of exhibitions on visitors, 243, 244, 249 ; views of visitors on museums, 179–181, 238 *sq.*; museums for the general public, 195, 202–11, (compare MUSEUMS, Pioneer museums ; Soviet Russia)
Children, education of,
America, (U.S.A.), 141, 151, 165, 168, 169, 218, 219
British Isles, 141, 145, 151, 176, 183, 184, 218, 219
Fascist Italy, 159
Liberal Europe (mainly, 1918-39), 141, 176, 184, 218–19
National Socialist Germany, 160, 161
Russia, (U.S.S.R.), 155, 156
Suggestions for museum services for children, 211–20

MUSEUMS (*contd.*)—
The " Framework Exhibition ", 213 *sq.*, Young People's Museum, a plan for, 255
Educative values of museums, 188
Experimental work on museums, in America, 167, 169, 218, 219, 246–8 ; done by the writer, 211–13, 236–49, suggested for the future, 250, 251, (compare Psychology and Museums)

MUSEUMS (referred to in this book) in their *geographical order*, (compare Fascist Italy, Liberal Europe, National Socialist Germany ; MUSEUMS, Education, Types) :
America (U.S.A.), 136, 145, 150–52, 162–70 ; museum architecture, 164, 168
Boston, 163
Brooklyn (services for children), 218
Charleston, South Carolina, 112
New York, city : the Cloisters, 163 ; Metropolitan Museum, 164, 166–8, 170
Philadelphia, Pennsylvania Museum of Art, 163
Academy of Fine Arts, 112
St. Louis, (School Museum), 192
Salem, Massach., Peabody Museum, 112
Toledo, Museum of Art, 164
Austria :
Vienna :
Barock Museum, 175, 176
Belvedere, Museum in the, 112, 127, 128
Imperial Museums (architecture), 146
Sociology and Economics, museum of, 173, 175
Stallburg, the museum in the, 89, 127, 128, 283
The British Isles, 136, 181

MUSEUMS (*contd.*)—
Cambridge, Fitzwilliam Museum, 182
University Museum of Archæology and Ethnology, xiv, 236
Cardiff, National Museum of Wales, 183, 192
Edinburgh :
Museum of Science and Art (later Royal Scottish Museum), 117
The Royal Scottish Museum (formerly Museum of Science and Art), 175
Glasgow, Art Gallery and Museum, 146; (architecture) 218, 219 (school services)
Huddersfield, 192
London :
The British Museum, 7, 84, 92, 96, 103, 112–18, 139, 140, 142, 151, 277, 278, (compare Collectors Index, Sloane, Sir H.)
Imperial Institute, 172, 174, 218
National Gallery, 137
Science Museums, 140, 142, 172, 174
South Kensington Museum, 140, 142, 145
Victoria and Albert Museum, 146, *see* South Kensington Museum
Wellcome Medical Museum, 174, 175
Maidstone, 175
Oxford :
Ashmolean Museum, 110–12
Pitt-Rivers Museum, 144
York, Castle Museum, 182
Czechoslovakia :
Prague, National Museum, 137
France :
Paris :
Louvre, museum in the, 26–8, 45, 46, 82, 89, 112, 118–22, 171, 183, 184, 233, 234, 276, 280, 281

MUSEUMS (*contd.*)—
Museé de l'Homme, 139, 173, 174
Musée Guimet, 182
Trocadero, *see* Musée de l'Homme
Germany, 136, 145, 147, (compare National Socialist Germany)
Berlin :
Altes Museum, 112, 129, 130
Kaiser Friedrich Museum, 143
Kunstkammer, 130, (compare Collectors Index, Brandenburg)
National Gallery, 160, 161, 162
National Museum of Folk Culture, 162
Breslau, Schlesisches Museum, 162
Dresden, Gallery, 105, 129
Museum of Hygiene, 172, 174
Duesseldorf, Museum of Economics, 172, 173
Essen, 184
Hagen, 145
Mannheim, 184
Munich,
National Museum, 81, 92, 145, 146
Pinakothek, 102, 135, 138
Science Museum, 172, 174
Nuremberg, Germanic National Museum, 138, (compare National Socialist Germany, museums in)
Holland :
Haarlem, Colonial Museum, 140
Hague, New Museum, 182
Hague, 176
Leyden, Rijksmuseum voor Volkenkunde, 140
Hungary, Budapest, National Museum, 137
Italy, Rome, (compare Fascist Italy) :
Museo delle Terme, 138
Vatican, museums in the :
The *Belvedere*, 89, 93, 122, 123, 125, 282

MUSEUMS (*contd*).—
Pinacotheca, 158, 159
Museum Pio Clementino, 123–5 (compare Fascist Italy, museums of)
Russia, The Hermitage, St. Petersburg, 131, 132
Soviet Russia, museums in, 152–6
Spain, Madrid :
National Archæological Museum, 138, 150, 151
The Prado, 112, 125–7, 171, 182, 283
Sweden, Stockholm :
Far East Museum, 182
Nordiska Museet, 175
Skansen, open-air museum, 138, 144, 183

MUSEUMS, (*Types of*) (referred to in this book) (compare General – Public – Research – Museums, Students' Galleries, Young People's Museums ; Centre of Training in Basic Facts, the museum as a ; MUSEUMS and Education, Adult Education)
Army museums, Germany, 159–62
Art museums, sociological approach to, 153–5, 161, 176, 210
Arts and Crafts, museums of, 137, 140, 141, 145
College Museums, 252
Company Museums, 165, 169
Economics, museums of, *see* Sociology, museums of
Ethnological museums, 137–40, 142, 144, 150, 151, 153, 162, 173, 174, 201
Fatherland museums, 159–61
Folk museums, 210, 250 ; British Isles, 182, 183 ; Germany, 162 ; Sweden, 138, 144, 183
Historical museums, 137, 138, 143, 150, 151, 157, 210, (compare Fatherland, Folk, House, Trailside museums)

MUSEUMS (*contd.*)—
House Museums, U.S.A., 145, 151, 165, 170, 193, 203
Hygiene Museums, 155, 174, (compare Medical museums)
Medical museums, 174, 183, (compare Hygiene museums)
National museums, *see* Historical museums
Natural History museums, 142, 155
Open-air museums, 138, 144, 183
Science museums, 112, 137, 140, 172, 174
Sociology, museums of, 161, 172, 173, 175, 176, 210
Trailside museums, U.S.A., 165, 170, 193, 203
University museums, *see* College museums

National Museums, *see* MUSEUMS, Types of
National Socialist Germany, museums in, 159–162
Neurath, O., *see* Visual Education, MUSEUMS of Sociology

Penetralia, term, 4
Period rooms, *see* MUSEUMS, Presentation
Pinacotheca, term, 4, (architecture) 88
Psychology and museums (principles of visual perception), 174, 181, 249, 250

Rarotheca, term, 5
Relics, religious, 32–34, 36, 38, 101, 134
Repository, term, 5
Research museums, 193–5
Retiro, El, palace in Spain, 25
Rome, collections in ancient, *see* COLLECTIONS

Science, museums of, *see* MUSEUMS, Types of

Scientists, collections of, *see* COLLECTIONS
Scrittojo, term, 5
Sociology and museums, *see* MUSEUMS, Types of; Museums of Sociology
Soviet Russia, see MUSEUMS, (geographical order) Russia; MUSEUMS and Education
Spring Gardens, London, 66
Students' Galleries, 182, 195, 196, 201
Sudeley, Baron, 181, 182

Thesaurus, term, 5
Treasure chambers, 13, 14, 16–18, 128

Unicorn horn, 30

Vasari, G., 3, 5, (the architect) 88
Visual education, *see* Education
Votive donations, 14, 31–34

West, B., 121–2
World citizenship, 222

Yale university, Institute of Human Relations, (research on museums) 167
Young People's Museum, *see* MUSEUMS and Education, Children, education of

NA,6 H9
59557

The International Library of

SOCIOLOGY AND SOCIAL RECONSTRUCTION

Editor: KARL MANNHEIM

Late Professor of Education in the University of London

ADVISORY BOARD: SIR HAROLD BUTLER, K.C.M.G., C.B.; SIR ALEXANDER CARR-SAUNDERS, M.A., Director of the London School of Economics; SIR FRED CLARKE, M.A. (Oxon), Chairman, Central Advisory Council for Education; LORD LINDSAY OF BIRKER, C.B.E., Master of Balliol College, Oxford.

PLAN OF THE LIBRARY

Sections

Sociology of Education, p. 2
Sociology of Religion, p. 3
Sociology of Art and Literature, p. 3
Sociological Approach to the Study of History, p. 4
Sociology of Law, p. 4
Criminology and the Social Services, p. 5
Sociology and Politics, p. 5
Foreign Affairs, Their Social, Political and Economic Foundations, p. 6
Migration and Re-settlement, p. 7
Economic Planning, p. 7
Sociology of the Family and Allied Topics, p. 7
Town and Country Planning. Human Ecology, p. 8
Sociological Studies of Modern Communities, p. 9
Anthropology and Colonial Policy, p. 9
Sociology and Psychology of the Present Crisis, p. 10
Social Psychology and Psycho-analysis, p. 10
Approaches to the Problem of Personality, p. 11
Philosophical and Social Foundations of Thought, p. 11
General Sociology, p. 12
Foreign Classics of Sociology, p. 12
Documentary, p. 12

ROUTLEDGE & KEGAN PAUL LTD.
68-74 Carter Lane, London, E.C.4

SOCIOLOGY OF EDUCATION

Education after School
by C. STIMSON *In preparation. About 15s.*

The Problem of Punishment in Education
by EWALD BOHM *In preparation. About 21s.*

Mission of the University
by ORTEGA Y GASSET. Translated and introduced by HOWARD LEE NOSTRAND *7s. 6d.*

Total Education: A Plea for Synthesis
by M. L. JACKS, Director, Department of Education, Oxford University *Second Impression. 10s. 6d.*

Education in Transition
A Sociological Analysis of the Impact of the War on English Education
by H. C. DENT *Fourth Impression. 12s. 6d.*

The Reform of Secondary Education
by H. C. DENT *About 15s.*

Education for Adults: A Study in Transition
by T. MACKAY MURE *About 10s. 6d.*

Who Shall Be Educated? The Challenge of Unequal Opportunities
by W. LLOYD WARNER, Prof. of Anthropology and Sociology, Member of Comm. on Human Development, Univ. of Chicago; ROBERT J. HAVIGHURST, Prof. of Education, Member of Comm. on Human Development, Univ. of Chicago; MARTIN B. LOEB, Inst. of Child Welfare, Univ. of California, at Berkeley *10s. 6d.*

The Social Psychology of Education: A Sociological Study
by C. M. FLEMING, Ed.B., Ph.D., University of London Institute of Education *Fourth Impression. 7s. 6d.*

German Youth: Bond or Free
by HOWARD BECKER, Professor of Sociology, University of Wisconsin *Illustrated. 18s.*

The Museum: Its History and Its Tasks in Education
by ALMA S. WITTLIN, Dr. Phil. *In preparation. Illustrated. About 21s.*

Comparative Education
A Study of Education Facts and Traditions.
NICHOLAS HANS, Lecturer in Comparative Education at the University of London, King's College *About 21s. net*

SOCIOLOGY OF RELIGION

Sociology of Religion
by JOACHIM WACH *30s.*

The Economic Order and Religion
by FRANK KNIGHT, Prof. of Social Sciences, University of Chicago, and THORNTON W. MERRIAM, Director of U.S.O. Training, Nat. Council of the Y.M.C.A. *15s.*

SOCIOLOGY OF ART AND LITERATURE

Sociology of the Renaissance
by ALFRED VON MARTIN, translated by W. L. LUETKENS
Second Impression. 8s. 6d.

Theatre, Drama and Audience in Goethe's Germany
by W. H. BRUFORD, M.A., Professor of German, University of Edinburgh *In Preparation. About 25s.*

Chekhov and His Russia: A Sociological Study
by W. H. BRUFORD, M.A., Professor of German in the University of Edinburgh *16s.*

The Sociology of Literary Taste
by LEVIN L. SCHÜCKING. Dr. Phil. *Second Impression 7s. 6d.*

Men of Letters and the English Public in the 18th Century, 1660-1744. Dryden, Addison, Pope
by ALEXANDRE BELJAME. Edited with an Introduction and Notes by Prof. BONAMY DOBREE. Translated by E. O. LORIMER *25s.*

CRIMINOLOGY AND THE SOCIAL SERVICES

Theory and Practice of a Family Court
by CARL BIRNBAUM, formerly Professor of Psychiatry, Berlin University, and John Otto Reinemann, Dr. Jur., formerly Municipal Councillor in Berlin *In preparation. About 15s.*

Juvenile Delinquency in an English Middletown
by HERMANN MANNHEIM, Lecturer in Criminology in the University of London *In preparation. About 18s.*

Mental Health in a Rural Area
by Dr. MAYER GROSS *In preparation. About 15s.*

Criminal Justice and Social Reconstruction
by HERMANN MANNHEIM, Dr. Jur., Lecturer in Criminology in the University of London *15s.*

The Psycho-Analytical Approach to Juvenile Delinquency: Theory, Case Studies, Treatment
by KATE FRIEDLANDER, M.D., L.R.C.P. (Edin.), D.P.M. (Lond.), Hon. Psychiatrist, Inst. for the Scientific Treatment of Delinquency; Clinical Dir., W. Sussex Child Guidance Service *18s.*

Voluntary Social Services since 1918
by HENRY A. MESS, late Reader in Social Science in the University of London in collaboration with Constance Braithwaite, Violet Creech-Jones, Hilda Jennings, Pearl Jephcott, Harold King, Nora Milnes, John Morgan, Gertrude Williams and W. E. Williams. Edited by GERTRUDE WILLIAMS, Lecturer in Economics, University of London *21s.*

SOCIOLOGY AND POLITICS

Social and Economic Movements: A Handbook to the Understanding of the Modern Political Scene
by H. W. LAIDLER *In preparation. About 30s.*

The Analysis of Political Behaviour: An Empirical

SOCIOLOGICAL APPROACH TO THE STUDY OF HISTORY

The Aftermath of the Napoleonic Wars: The Concert of Europe—An Experiment

by H. G. SCHENK, D.Phil. (Oxon) *Illustrated. 16s.*

Progress and Disenchantment: A Study of European Romanticism

by H. G. SCHENK, D.Phil. (Oxon) *Illustrated. About 21s.*

SOCIOLOGY OF LAW

The Sociology of Law

by GEORGES GURVITCH, Ph.D., LL.D., Prof. of Sociology, University of Strassbourg, France. With an Introduction by ROSCOE POUND, Prof. of Jurisprudence, late Dean of the Faculty of Law, Harvard University *18s.*

The Institutions of Private Law and Their Social Functions

by KARL RENNER, President of the Austrian Republic. Edited with an Introduction and Notes by O. KAHN-FREUND, Ll.M., Dr. Jur., Lecturer in Law, University of London *About 10s. 6d.*

Legal Aid

by ROBERT EGERTON, Hon. Sec. Legal Sub-committee Cambridge House, Solicitor of the Supreme Court. With an Introduction by D. L. GOODHART, K.C., D.C.L., Ll.D., Prof. of Jurisprudence, Oxford

2nd Impression. 10s. 6d.

Soviet Legal Theory: Its Social Background and Development

by RUDOLF SCHLESINGER, Ph.D., London *2nd Impression. 16s.*

CRIMINOLOGY AND THE SOCIAL SERVICES

Theory and Practice of a Family Court
by CARL BIRNBAUM, formerly Professor of Psychiatry, Berlin University, and John Otto Reinemann, Dr. Jur., formerly Municipal Councillor in Berlin *In preparation. About 15s.*

Juvenile Delinquency in an English Middletown
by HERMANN MANNHEIM, Lecturer in Criminology in the University of London *In preparation. About 18s.*

Mental Health in a Rural Area
by Dr. MAYER GROSS *In preparation. About 15s.*

Criminal Justice and Social Reconstruction
by HERMANN MANNHEIM, Dr. Jur., Lecturer in Criminology in the University of London *15s.*

The Psycho-Analytical Approach to Juvenile Delinquency: Theory, Case Studies, Treatment
by KATE FRIEDLANDER, M.D., L.R.C.P. (Edin.), D.P.M. (Lond.), Hon. Psychiatrist, Inst. for the Scientific Treatment of Delinquency; Clinical Dir., W. Sussex Child Guidance Service *18s.*

Voluntary Social Services since 1918
by HENRY A. MESS, late Reader in Social Science in the University of London in collaboration with Constance Braithwaite, Violet Creech-Jones, Hilda Jennings, Pearl Jephcott, Harold King, Nora Milnes, John Morgan, Gertrude Williams and W. E. Williams. Edited by GERTRUDE WILLIAMS, Lecturer in Economics, University of London *21s.*

SOCIOLOGY AND POLITICS

Social and Economic Movements: A Handbook to the Understanding of the Modern Political Scene
by H. W. LAIDLER *In preparation. About 30s.*

The Analysis of Political Behaviour: An Empirical Approach
by HAROLD D. LASSWELL, Professor of Law, Yale University School of Law *21s.*

Dictatorship and Political Police

The Technique of Control by Fear by E. K. BRAMSTEDT, Ph.D. (London)

15s.

Nationality in History and Politics

by FREDERICK HERTZ, Author of "Race and Civilisation"

Second Impression. 25s.

FOREIGN AFFAIRS, THEIR SOCIAL, POLITICAL AND ECONOMIC FOUNDATIONS

Patterns of Peacemaking

by DAVID THOMSON, Ph.D., Cantab., Research Fellow of Sidney Sussex Coll., Cambridge; E. MEYER, Dr. rer. pol., and A. BRIGGS, B.A., Cantab. *21s.*

French Canada in Transition

by EVERETT C. HUGHES, Professor of Sociology, University of Chicago

15s.

State and Economics in the Middle East

by A. BONNE, Dr. œc. publ., Director, Economic Research Institute of Palestine *About 25s.*

Economic Development of the Middle East

An Outline of Planned Reconstruction by A. BONNE, Dr. œc. publ., Director, Economic Research Institute of Palestine

Second Impression. 12s. 6d.

Federalism in Central and Eastern Europe

by RUDOLF SCHLESINGER, Ph.D., London *30s.*

The Danube Basin and the German Economic Sphere

by ANTONIN BASCH, Dr. Phil., Columbia University *18s.*

The Regions of Germany

by R. E. DICKINSON, Reader in Geography, University College, London

Second Impression. 10s. 6d.

MIGRATION AND RE-SETTLEMENT

Settlement in Underpopulated Areas

by JULIUS ISAAC, Ph.D. (London). *In preparation. About 18s.*

Economics of Migration

by JULIUS ISAAC, Ph.D., London. With an Introduction by Sir ALEXANDER CARR-SAUNDERS, Director of the London School of Economics *18s.*

Co-operative Communities at Work

by HENRIK INFIELD, Director, Rural Settlement Inst., New York *15s.*

ECONOMIC PLANNING

Retail Trade Associations

A New Form of Monopolist Organisation in Britain, by HERMANN LEVY, Author of "The New Industrial System" *Second Impression. 15s.*

The Shops of Britain: A Study in Retail Trade Distribution

by HERMANN LEVY *21s.*

The Price of Social Security—The Problem of Labour Mobility

by GERTRUDE WILLIAMS, Lecturer in Economics, University of London *Second Impression. 12s. 6d.*

SOCIOLOGY OF THE FAMILY AND ALLIED TOPICS

The Family and Democratic Society

by J. K. FOLSOM, Professor of Sociology, Vassar College *In preparation. About 30s.*

Nation and Family

The Swedish Experiment in Democratic Family and Population Policy by ALVA MYRDAL *2nd Impression. 21s.*

The Sociology of Women's Work

by GERTRUDE WILLIAMS, Lecturer in Economics, University of London

About 15s.

Adolescence

Its Social Psychology: With an Introduction to recent findings from the fields of Anthropology, Physiology, Medicine, Psychometrics and Sociometry

by C. M. FLEMING, Ed.B., Ph.D., University of London Institute of Education *About 15s.*

TOWN AND COUNTRY PLANNING. HUMAN ECOLOGY

Social Background of a Plan: A Study of Middlesbrough

Edited by RUTH GLASS. Illustrated with Maps and Plans

In preparation. About 30s.

City, Region and Regionalism

by ROBERT E. DICKINSON, Reader in Geography, University College, London. With Maps and Plans *21s.*

The West European City: A Study in Urban Geography

by ROBERT E. DICKINSON, Reader in Geography, University College, London. Illustrated, with Maps and Plans. *In preparation. About 21s.*

Creative Demobilisation

Vol. 1. Principles of National Planning

By E. A. GUTKIND, D.Ing.

Vol. 2. Case Studies in National Planning

Edited by E. A. GUTKIND, D.Ing. *Second Impression. 21s. each*

Revolution of Environment

by E. A. GUTKIND, D.Ing. *Illustrated. 30s.*

The Journey to Work

by K. LIEPMANN, Ph.D., London. With an Introduction by Sir Alexander Carr-Saunders, Director of the London School of Economics

Second Impression. 15s.

SOCIOLOGICAL STUDIES OF MODERN COMMUNITIES

Negroes in Britain

A study of Racial Relations in English Society
by K. L. LITTLE, Ph.D., London *25s.*

Co-operative Living in Palestine

by HENRIK F. INFIELD, Director, Rural Settlement Inst., New York
Illustrated. 7s. 6d.

ANTHROPOLOGY AND COLONIAL POLICY

The Sociology of Colonies: An Introduction to the Study of Race Contact

by RENÉ MAUNIER. Translated from the French by E. O. Lorimer
In preparation. About 42s.

Malay Fishermen: Their Peasant Economy

by RAYMOND FIRTH, Prof. of Anthropology, University of London
Illustrated. 25s. net

Peasant Life in China

by HSIAO T'UNG FEI, Ph.D., London *Fourth Impression. Illustrated. 15s.*

A Chinese Village: Taitou, Shantung Province

by Martin C. Yang *About 15s.*

Hsinlung Hsiang

A Field Study of Peasant Life in the Red Basin, West China
by ISABEL CROOK and YU HSI-CHI *About 21s.*

A Japanese Village: Suye Mura

by JOHN P. EMBREE, Visiting Assoc. Prof. of Anthropology, University of Chicago. With an Introduction by A. R. RADCLIFFE-BROWN, Professor of Social Anthropology, Oxford University
Illustrated. 18s.

The Golden Wing: A Sociological Study of Chinese Familism

by LIN HUEH-HWA, with an Introduction by RAYMOND FIRTH
16s.

SOCIOLOGY AND PSYCHOLOGY OF THE PRESENT CRISIS

War, Love or Money: A Psychological Study of European Culture Patterns
by H. V. DICKS, M.D., M.R.C.P. *In preparation. About 21s.*

Diagnosis of Our Time
by KARL MANNHEIM *Fourth Impression. 10s. 6d.*

Farewell to European History or the Conquest of Nihilism
by ALFRED WEBER *16s.*

The Fear of Freedom
by Dr. ERICH FROMM *Fourth Impression. 15s.*

SOCIAL PSYCHOLOGY AND PSYCHO-ANALYSIS

Psychology and the Social Pattern
by JULIAN BLACKBURN, Ph.D., B.Sc. (Econ.), Lecturer on Social Psychology, London School of Economics *Second Impression. 10s. 6d.*

The Framework of Human Behaviour
by JULIAN BLACKBURN, Ph.D., B.Sc. (Econ.), Lecturer on Social Psychology, London School of Economics *12s. 6d.*

Individual Development in Society
by JULIAN BLACKBURN, Ph.D., B.Sc. (Econ.), Lecturer on Social Psychology, London School of Economics *About 10s. 6d.*

(*Three independent volumes supplementing each other*)

A Handbook of Social Psychology
by KIMBALL YOUNG, Professor of Sociology, Queens College, New York *Second Impression. 21s.*

Sigmund Freud—An Introduction
A Presentation of his Theories and a discussion of the Relationship between Psycho-analysis and Sociology by WALTER HOLLITSCHER, Dr. Phil. *8s. 6d.*

Social Learning and Imitation

by NEAL E. MILLER and JOHN DOLLARD of the Institute of Human Relations, Yale University *15s*

APPROACHES TO THE PROBLEM OF PERSONALITY

The Cultural Background of Personality

by RALPH LINTON, Professor of Anthropology, Columbia University *10s. 6d.*

The Feminine Character. History of an Ideology

by VIOLA KLEIN, Ph.D., London. With an Introduction by KARL MANNHEIM. *12s. 6d.*

The History of Autobiography in Antiquity

by GEORG MISCH. Translated by E. W. DICKES *About 21s.*

Personality and Problems of Adjustment

by KIMBALL YOUNG Demy 8vo. *35s.*

PHILOSOPHICAL AND SOCIAL FOUNDATIONS OF THOUGHT

Homo Ludens: A Study of the Play Element in Culture

by Professor J. HUIZINGA *In preparation. About 21s.*

The Ideal Foundations of Economic Thought

by W. STARK, Dr. rer. pol., Dr. Jur. *Second Impression. 15s.*

The History of Economics in Its Relation to Social Development

by W. STARK, Dr. rer. pol., Dr. Jur. *Second Impression 7s. 6d.*

America: Ideal and Reality

The United States of 1776 in Contemporary European Philosophy by W. STARK, Dr. rer. pol., Dr. Jur. *10s. 6d.*

The Decline of Liberalism as an Ideology

by J. H HALLOWELL *12s. 6d.*

Society and Nature: A Sociological Inquiry

by HANS KELSEN, Formerly Prof. of Law, Vienna and Geneva, Department of Political Science, University of California *21s.*

Demographic Material Appearing in the Transactions of the Royal Society in the 17th and 18th Centuries
Edited by Dr. R. R. KUCZYNSKI *In preparation. About 15s.*

Population Controversies of the Eighteenth Century
Edited by DAVID GLASS, Ph.D. *In preparation. About 15s.*

GENERAL SOCIOLOGY

A Handbook of Sociology
by W. F. OGBURN, Professor of Sociology, University of Chicago, and M. F. NIMKOFF, Professor of Sociology, Bucknell University *25s.*

FOREIGN CLASSICS OF SOCIOLOGY

Wilhelm Dilthey: Selected Readings from his Works and an Introduction to his Sociological and Philosophical Work
by H. A. HODGES, Prof. of Philosophy, University of Reading *10s. 6d.*

From Max Weber: Essays in Sociology
Translated, edited, and with an Introduction by H. H. GERTH and C. W. MILLS *21s.*

DOCUMENTARY

Changing Attitudes in Soviet Russia
Documents and Readings concerning the *Family*
Edited by R. SCHLESINGER, Ph.D., London *About 21s.*

Changing Attitudes in Soviet Russia
Documents and Readings concerning *National Autonomy and Experiments in Administrative Devolution*
Edited by R. SCHLESINGER, Ph.D., London *About 21s.*

Changing Attitudes in Soviet Russia
Documents and Readings concerning *Foreign Policy*
Edited by R. SCHLESINGER, Ph.D., London *About 21s.*

All prices are net